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L107 ANSWER 1 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:588430 HCAPLUS

DN 143:99178

ED Entered STN: 08 Jul 2005

TI Absorbent products incorporating **individualized intrafiber crosslinked cellulosic fibers** with improved brightness and color

IN Stoyanov, Angel; Naieni, Shahrokh A.; Unrau, David G.

PA Weyerhaeuser Company, USA

SO U.S. Pat. Appl. Publ., 9 pp.

CODEN: USXXCO

DT Patent

LA English

IC ICM A61F013-15

ICS A61F013-20

INCL 604367000

CC 43-7 (Cellulose, Lignin, Paper, and Other Wood Products)

Section cross-reference(s): 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005148966	A1	20050707	US 2003-748969	20031230
PRAI	US 2003-748969		20031230		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2005148966	ICM	A61F013-15
	ICS	A61F013-20
	INCL	604367000
US 2005148966	NCL	604/367.000

AB An absorbent product is described in which **cellulosic fibers** are reacted with an effective amount of a α -

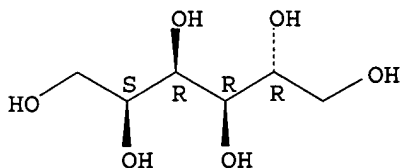
hydroxy polycarboxylic acid

crosslinking agent in the presence of an effective amount of a C4-C12 **polyol**. The **individualized intrafiber crosslinked cellulosic fibers** are characterized by a Whiteness Index, (WICDM-L) greater than about 69. The **crosslinked fibers** can be incorporated into infant diapers, adult incontinent products, feminine hygiene products and paperboard products.

- ST **polyol** discoloration preventer **hydroxy polycarboxylic crosslinked cellulosic fiber** absorbent; hygiene product **polyol** discoloration preventer **hydroxy polycarboxylic crosslinked cellulosic**; disposable diaper **polyol** discoloration preventer **hydroxy polycarboxylic crosslinked cellulosic**
- IT Absorbents
 Cellulose pulp
Discoloration prevention agents
Disposable diapers
 (absorbent products incorporating **hydroxy polycarboxylic acid-crosslinked cellulosic fibers** with improved brightness and color by adding **polyols**)
- IT Glycosides
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (absorbent products incorporating **hydroxy polycarboxylic acid-crosslinked cellulosic fibers** with improved brightness and color by adding **polyols**)
- IT **Paper**
 (absorbent; absorbent products incorporating **hydroxy polycarboxylic acid-crosslinked cellulosic fibers** with improved brightness and color by adding **polyols**)
- IT **Carboxylic acids, uses**
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (**hydroxy, α -**; absorbent products incorporating **hydroxy polycarboxylic acid-crosslinked cellulosic fibers** with improved brightness and color by adding **polyols**)
- IT Medical goods
 (incontinence devices; absorbent products incorporating **hydroxy polycarboxylic acid-crosslinked cellulosic fibers** with improved brightness and color by adding **polyols**)
- IT Absorbents
 (paper; absorbent products incorporating **hydroxy polycarboxylic acid-crosslinked cellulosic fibers** with improved brightness and color by adding **polyols**)
- IT **Alcohols, uses**
RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (**polyhydric**; absorbent products incorporating **hydroxy polycarboxylic acid-crosslinked cellulosic fibers** with improved brightness and color by adding **polyols**)
- IT Medical goods
 (sanitary napkins; absorbent products incorporating **hydroxy polycarboxylic acid-crosslinked cellulosic fibers** with improved brightness and color by adding **polyols**)

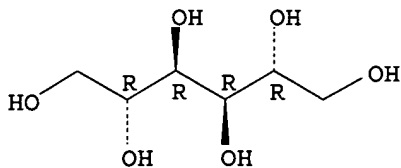
- IT **Paper**
 (towels; absorbent products incorporating hydroxy polycarboxylic acid-crosslinked cellulosic fibers with improved brightness and color by adding polyols)
- IT 50-70-4, Sorbitol, uses 69-65-8, Mannitol 77-92-9, Citric acid, uses 80-69-3, Tartronic acid 87-69-4, Tartaric acid, uses 87-89-8, myo-Inositol 87-99-0, Xylitol 149-32-6, Erythritol 488-81-3, Ribitol 585-86-4, Lactitol 585-88-6, Maltitol 2152-56-9, Arabinitol 2889-31-8, α -Hydroxyglutaric acid 6915-15-7, Malic acid 64519-82-0, Isomalt
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (absorbent products incorporating hydroxy polycarboxylic acid-crosslinked cellulosic fibers with improved brightness and color by adding polyols)
- IT 50-70-4, Sorbitol, uses 69-65-8, Mannitol 77-92-9, Citric acid, uses 80-69-3, Tartronic acid 87-69-4, Tartaric acid, uses 87-89-8, myo-Inositol 87-99-0, Xylitol 149-32-6, Erythritol 488-81-3, Ribitol 585-86-4, Lactitol 585-88-6, Maltitol 2152-56-9, Arabinitol 2889-31-8, α -Hydroxyglutaric acid 6915-15-7, Malic acid 64519-82-0, Isomalt
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (absorbent products incorporating hydroxy polycarboxylic acid-crosslinked cellulosic fibers with improved brightness and color by adding polyols)
- RN 50-70-4 HCAPLUS
 CN D-Glucitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



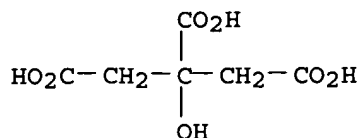
- RN 69-65-8 HCAPLUS
 CN D-Mannitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



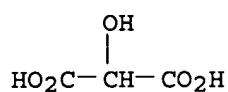
RN 77-92-9 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



RN 80-69-3 HCAPLUS

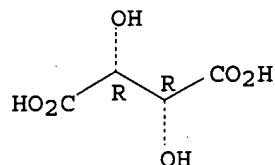
CN Propanedioic acid, hydroxy- (9CI) (CA INDEX NAME)



RN 87-69-4 HCAPLUS

CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)- (9CI) (CA INDEX NAME)

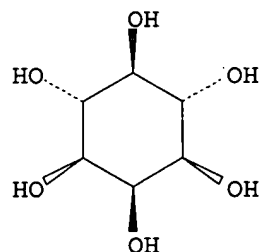
Absolute stereochemistry.



RN 87-89-8 HCAPLUS

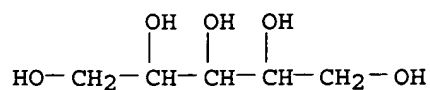
CN myo-Inositol (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 87-99-0 HCAPLUS

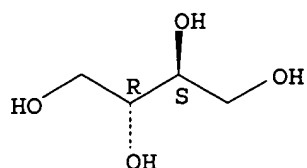
CN Xylitol (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 149-32-6 HCAPLUS

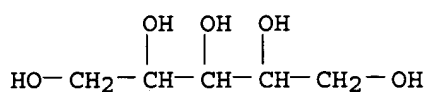
CN 1,2,3,4-Butanetetrol, (2R,3S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 488-81-3 HCAPLUS

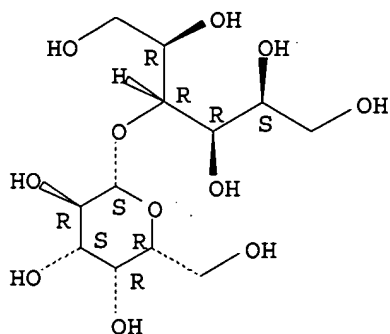
CN Ribitol (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 585-86-4 HCAPLUS

CN D-Glucitol, 4-O-β-D-galactopyranosyl- (9CI) (CA INDEX NAME)

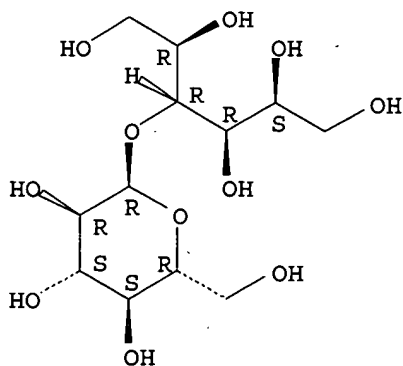
Absolute stereochemistry.



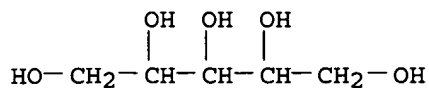
RN 585-88-6 HCAPLUS

CN D-Glucitol, 4-O-α-D-glucopyranosyl- (9CI) (CA INDEX NAME)

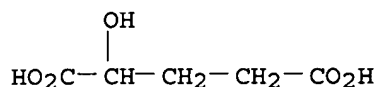
Absolute stereochemistry.



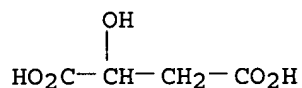
RN 2152-56-9 HCAPLUS
 CN Arabinitol (8CI, 9CI) (CA INDEX NAME)



RN 2889-31-8 HCAPLUS
 CN Pentanedioic acid, 2-hydroxy- (9CI) (CA INDEX NAME)

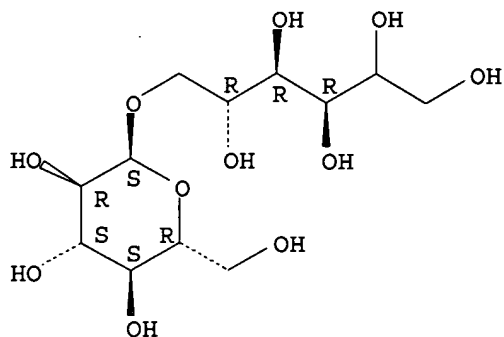


RN 6915-15-7 HCAPLUS
 CN Butanedioic acid, hydroxy- (9CI) (CA INDEX NAME)



RN 64519-82-0 HCAPLUS
 CN D-arabino-Hexitol, 6-O- α -D-glucopyranosyl-, (2 ξ)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L107 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2005:588132 HCAPLUS
 DN 143:99145
 ED Entered STN: 08 Jul 2005
 TI **Individualized intrafiber crosslinked**
cellulosic fibers with improved brightness and color
 IN **Stoyanov, Angel; Naieni, Shahrokh A.; Unran,**
David G.
 PA **Weyerhaeuser Co., USA**
 SO U.S. Pat. Appl. Publ., 9 pp.
 CODEN: USXXCO
 DT Patent

LA English
 IC ICM D21C009-00
 INCL 162009000; 162157600; 008116100
 CC 43-6 (Cellulose, Lignin, Paper, and Other Wood Products)
 FAN.CNT 1

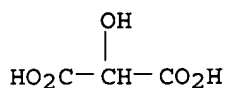
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005145350	A1	20050707	US 2003-748930	20031230 <--
PRAI	US 2003-748930		20031230	<--	

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	US 2005145350	ICM	D21C009-00
		INCL	162009000; 162157600; 008116100
	US 2005145350	NCL	162/009.000; 162/157.600; 008/116.100
AB	Individualized intrafiber crosslinked cellulosic fibers have improved color properties and brightness. Cellulosic fibers are crosslinked using hydroxy polycarboxylic acids in the presence of C4-12 polyols . The improved fibers have Whiteness Index .gtorsim.69.0.		
ST	individualized intrafiber crosslinked cellulosic fiber		
IT	Fibers RL: TEM (Technical or engineered material use); USES (Uses) (cellulosic; method for forming individualized intrafiber crosslinked cellulosic fibers with improved brightness and color)		
IT	Carboxylic acids, reactions RL: RCT (Reactant); RACT (Reactant or reagent) (hydroxy, polycarboxylic, crosslinking agent; polycarboxylic acid intrafiber-crosslinked cellulosic fibers with improved brightness and color)		
IT	Cellulose pulp Crosslinking Crosslinking agents (method for forming individualized intrafiber crosslinked cellulosic fibers with improved brightness and color)		
IT	Glycosides RL: RCT (Reactant); RACT (Reactant or reagent) (method for forming individualized intrafiber crosslinked cellulosic fibers with improved brightness and color)		
IT	80-69-3, Tartronic acid 87-69-4, Tartaric acid, reactions 597-44-4, Citramalic acid 2889-31-8, α - Hydroxyglutaric acid 6915-15-7, Malic acid RL: RCT (Reactant); RACT (Reactant or reagent) (crosslinking agent; polycarboxylic acid intrafiber-crosslinked cellulosic fibers with improved brightness and color)		
IT	87-78-5, Mannitol 87-89-8, myo-Inositol 488-38-0, Volemitol 527-06-0, Perseitol 585-86-4, Lactitol 585-88-6, Maltitol 64519-82-0, Isomalt RL: RCT (Reactant); RACT (Reactant or reagent) (method for forming individualized intrafiber		

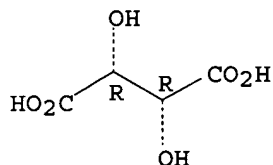
crosslinked cellulosic fibers with improved brightness and color)

- IT 50-70-4, Sorbitol, reactions 77-92-9,
Citric acid, reactions 87-99-0,
Xylitol 149-32-6, Erythritol 488-81-3
, Ribitol 2152-56-9, Arabinitol
RL: RCT (Reactant); RACT (Reactant or reagent)
(polycarboxylic acid intrafiber-crosslinked
cellulosic fibers with improved brightness and color)
- IT 80-69-3, Tartronic acid 87-69-4,
Tartaric acid, reactions 597-44-4,
Citramalic acid 2889-31-8, α -
Hydroxyglutaric acid 6915-15-7, Malic
acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking agent; polycarboxylic acid
intrafiber-crosslinked cellulosic
fibers with improved brightness and color)
- RN 80-69-3 HCAPLUS
CN Propanedioic acid, hydroxy- (9CI) (CA INDEX NAME)

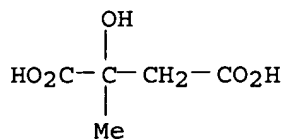


- RN 87-69-4 HCAPLUS
CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)- (9CI) (CA INDEX NAME)

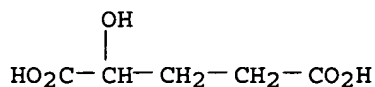
Absolute stereochemistry.



- RN 597-44-4 HCAPLUS
CN Butanedioic acid, 2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)

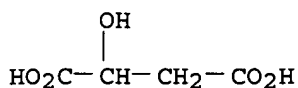


- RN 2889-31-8 HCAPLUS
CN Pentanedioic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



RN 6915-15-7 HCAPLUS

CN Butanedioic acid, hydroxy- (9CI) (CA INDEX NAME)



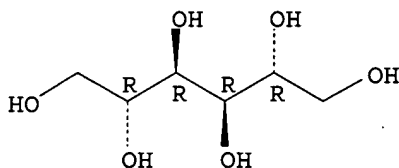
IT 87-78-5, Mannitol 87-89-8, myo-Inositol 488-38-0, Volemitol 527-06-0, Perseitol 585-86-4, Lactitol 585-88-6, Maltitol 64519-82-0, Isomalt

RL: RCT (Reactant); RACT (Reactant or reagent)
(method for forming individualized intrafiber crosslinked cellulosic fibers with improved brightness and color)

RN 87-78-5 HCAPLUS

CN Mannitol (8CI, 9CI) (CA INDEX NAME)

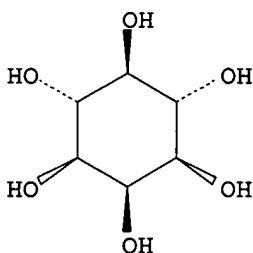
Relative stereochemistry.



RN 87-89-8 HCAPLUS

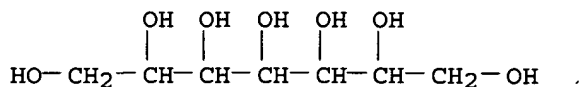
CN myo-Inositol (9CI) (CA INDEX NAME)

Relative stereochemistry.



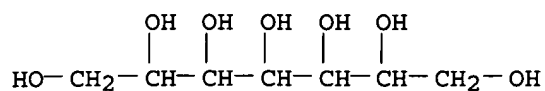
RN 488-38-0 HCAPLUS

CN D-glycero-D-manno-Heptitol (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 527-06-0 HCAPLUS

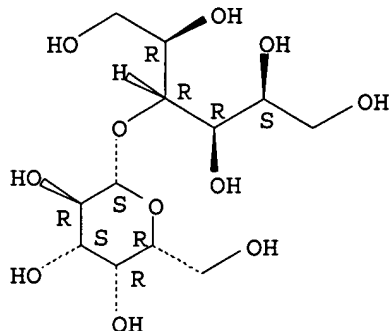
CN D-glycero-D-galacto-Heptitol (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 585-86-4 HCAPLUS

CN D-Glucitol, 4-O-β-D-galactopyranosyl- (9CI) (CA INDEX NAME)

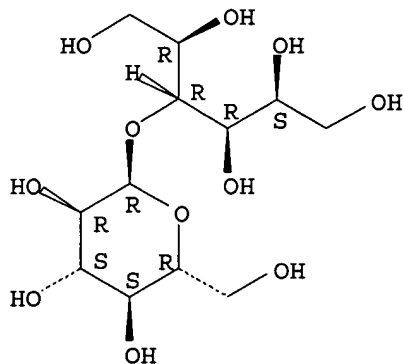
Absolute stereochemistry.



RN 585-88-6 HCAPLUS

CN D-Glucitol, 4-O-α-D-glucopyranosyl- (9CI) (CA INDEX NAME)

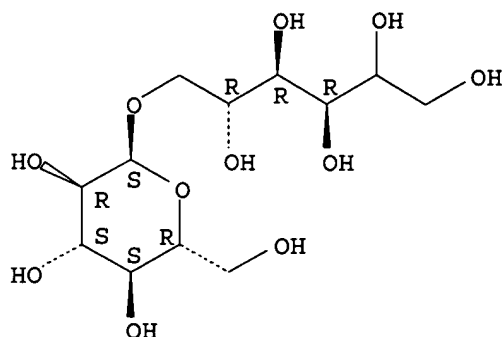
Absolute stereochemistry.



RN 64519-82-0 HCAPLUS

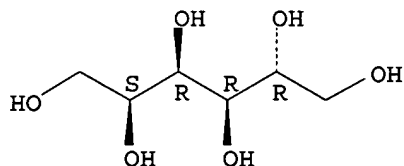
CN D-arabino-Hexitol, 6-O-α-D-glucopyranosyl-, (2ξ)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

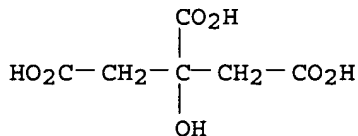


IT 50-70-4, Sorbitol, reactions 77-92-9,
 Citric acid, reactions 87-99-0,
 Xylitol 149-32-6, Erythritol 488-81-3
 , Ribitol 2152-56-9, Arabinitol
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (polycarboxylic acid intrafiber-crosslinked
 cellulosic fibers with improved brightness and color)
 RN 50-70-4 HCAPLUS
 CN D-Glucitol (9CI) (CA INDEX NAME)

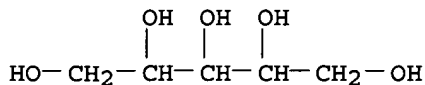
Absolute stereochemistry.



RN 77-92-9 HCAPLUS
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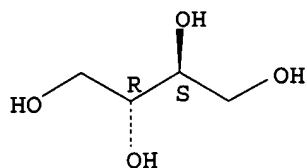


RN 87-99-0 HCAPLUS
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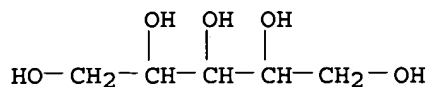


RN 149-32-6 HCAPLUS
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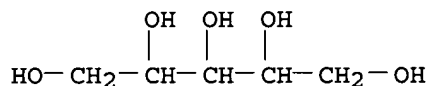
Relative stereochemistry.



RN 488-81-3 HCAPLUS
 CN Ribitol (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 2152-56-9 HCAPLUS
 CN Arabinitol (8CI, 9CI) (CA INDEX NAME)



L107 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2005:572624 HCAPLUS
 DN 143:79871
 ED Entered STN: 01 Jul 2005
 TI Method for forming **individualized intrafiber crosslinked cellulosic fibers** with improved brightness and color
 IN **Stoyanov, Angel; Naieni, Shahrokh A.; Unrau, David G.**
 PA **Weyerhaeuser Company, USA**
 SO U.S. Pat. Appl. Publ., 9 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM C08B003-16
 INCL 536064000; 162158000
 CC 43-6 (Cellulose, Lignin, Paper, and Other Wood Products)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005143571	A1	20050630	US 2003-748977	20031230 <--
PRAI	US 2003-748977		20031230	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
US 2005143571	ICM	C08B003-16	
	INCL	536064000; 162158000	
US 2005143571	NCL	536/064.000; 162/158.000	<--

AB A method for forming **individualized intrafiber crosslinked cellulosic fibers** comprises:
 applying an effective amount of a **crosslinking agent** in the presence of an effective amount of a **polyol** to a mat of **cellulosic fibers**, separating the mat into substantially

individualized fibers, drying the treated individualized fibers, curing the crosslinking agent in the presence of the polyol to form individualized intrafiber crosslinked cellulosic fibers, wherein the Whiteness Index, (WI(CDM-L)), of the individualized intrafiber crosslinked cellulosic fibers is greater than about 69.0. A method for forming individualized intrafiber crosslinked cellulosic fibers with improved color and brightness properties.

ST individualized intrafiber crosslinked cellulosic fiber

IT Fibers

RL: TEM (Technical or engineered material use); USES (Uses)
(cellulosic; method for forming individualized intrafiber crosslinked cellulosic fibers with improved brightness and color)

IT Carboxylic acids, reactions

RL: RCT (Reactant); RACT (Reactant or reagent)
(hydroxy, polycarboxylic, crosslinking agent; method for forming individualized intrafiber crosslinked cellulosic fibers with improved brightness and color)

IT Cellulose pulp

Crosslinking

Crosslinking agents

(method for forming individualized intrafiber crosslinked cellulosic fibers with improved brightness and color)

IT Glycosides

RL: RCT (Reactant); RACT (Reactant or reagent)
(method for forming individualized intrafiber crosslinked cellulosic fibers with improved brightness and color)

IT 80-69-3, Tartronic acid 87-69-4, Tartaric acid, reactions 597-44-4, Citramalic acid 2889-31-8, α - Hydroxyglutaric acid 6915-15-7, Malic acid

RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking agent; method for forming individualized intrafiber crosslinked cellulosic fibers with improved brightness and color)

IT 50-70-4, Sorbitol, reactions 77-92-9, Citric acid, reactions 87-78-5, Mannitol 87-89-8, myo-Inositol 87-99-0, Xylitol 149-32-6, Erythritol 488-38-0, Volemitol 488-81-3, Ribitol 527-06-0, Perseitol 585-86-4, Lactitol 585-88-6, Maltitol 2152-56-9, Arabinitol 64519-82-0, Isomalt

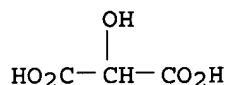
RL: RCT (Reactant); RACT (Reactant or reagent)
(method for forming individualized intrafiber crosslinked cellulosic fibers with improved brightness and color)

IT 80-69-3, Tartronic acid 87-69-4, Tartaric acid, reactions 597-44-4, Citramalic acid 2889-31-8, α - Hydroxyglutaric acid 6915-15-7, Malic acid

RL: RCT (Reactant); RACT (Reactant or reagent)
 (crosslinking agent; method for forming
 individualized intrafiber crosslinked
 cellulosic fibers with improved brightness and color)

RN 80-69-3 HCAPLUS

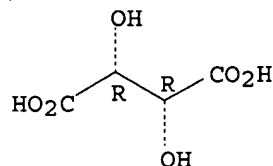
CN Propanedioic acid, hydroxy- (9CI) (CA INDEX NAME)



RN 87-69-4 HCAPLUS

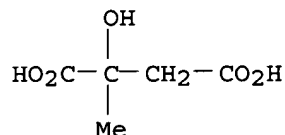
CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



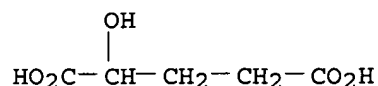
RN 597-44-4 HCAPLUS

CN Butanedioic acid, 2-hydroxy-2-methyl- (9CI) (CA INDEX NAME)



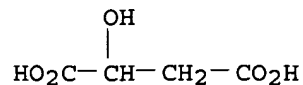
RN 2889-31-8 HCAPLUS

CN Pentanedioic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



RN 6915-15-7 HCAPLUS

CN Butanedioic acid, hydroxy- (9CI) (CA INDEX NAME)



IT 50-70-4, Sorbitol, reactions 77-92-9,
 Citric acid, reactions 87-78-5,
 Mannitol 87-89-8, myo-Inositol
 87-99-0, Xylitol 149-32-6, Erythritol
 488-38-0, Volemitol 488-81-3, Ribitol

527-06-0, Perseitol 585-86-4, Lactitol

585-88-6, Maltitol 2152-56-9,

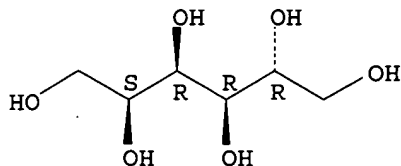
Arabinitol 64519-82-0, Isomalt

RL: RCT (Reactant); RACT (Reactant or reagent)
(method for forming individualized intrafiber
crosslinked cellulosic fibers with improved
brightness and color)

RN 50-70-4 HCAPLUS

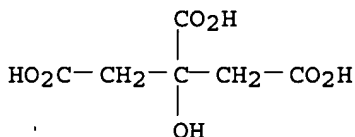
CN D-Glucitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 77-92-9 HCAPLUS

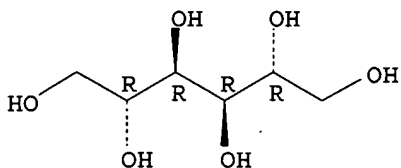
CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



RN 87-78-5 HCAPLUS

CN Mannitol (8CI, 9CI) (CA INDEX NAME)

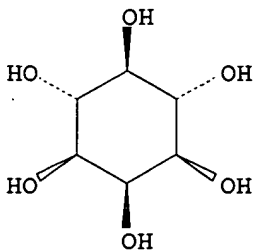
Relative stereochemistry.



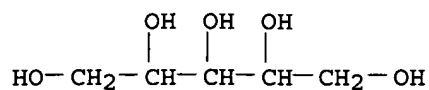
RN 87-89-8 HCAPLUS

CN myo-Inositol (9CI) (CA INDEX NAME)

Relative stereochemistry.

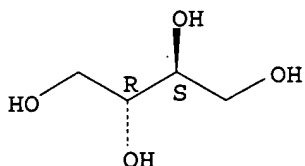


RN 87-99-0 HCAPLUS
 CN Xylitol (6CI, 8CI, 9CI) (CA INDEX NAME)

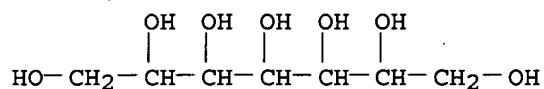


RN 149-32-6 HCAPLUS
 CN 1,2,3,4-Butanetetrol, (2R,3S)-rel- (9CI) (CA INDEX NAME)

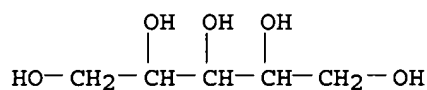
Relative stereochemistry.



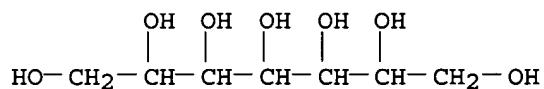
RN 488-38-0 HCAPLUS
 CN D-glycero-D-manno-Heptitol (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 488-81-3 HCAPLUS
 CN Ribitol (6CI, 8CI, 9CI) (CA INDEX NAME)

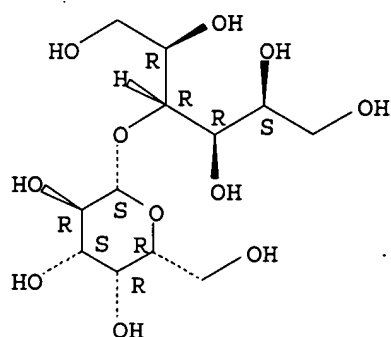


RN 527-06-0 HCAPLUS
 CN D-glycero-D-galacto-Heptitol (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 585-86-4 HCAPLUS
 CN D-Glucitol, 4-O-β-D-galactopyranosyl- (9CI) (CA INDEX NAME)

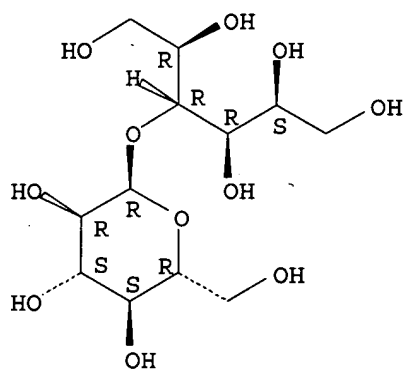
Absolute stereochemistry.



RN 585-88-6 HCAPLUS

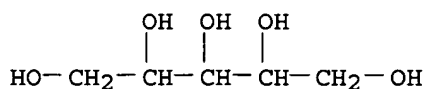
CN D-Glucitol, 4-O-α-D-glucopyranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 2152-56-9 HCAPLUS

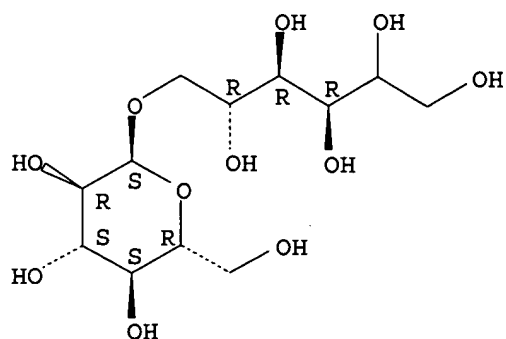
CN Arabinitol (8CI, 9CI) (CA INDEX NAME)



RN 64519-82-0 HCAPLUS

CN D-arabino-Hexitol, 6-O-α-D-glucopyranosyl-, (2ξ)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L107 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2005:539649 HCAPLUS
 DN 143:65559
 ED Entered STN: 23 Jun 2005
 TI Densification agent and oil-treated **cellulose fibers**
 IN Hamilton, Robert T.; West, Hugh
 PA Weyerhaeuser Company, USA
 SO Eur. Pat. Appl., 14 pp.
 CODEN: EPXXDW

DT Patent
 LA English
 IC ICM A61L015-28
 ICS A61L015-34; A61L015-42
 CC 63-7 (Pharmaceuticals)
 Section cross-reference(s): 43

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1543845	A2	20050622	EP 2004-251199	20040302
EP 1543845	A3	20050706		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				
US 2005133180	A1	20050623	US 2003-741231	20031219
PRAI US 2003-741231	A	20031219		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
EP 1543845	ICM	A61L015-28
	ICS	A61L015-34; A61L015-42
US 2005133180	NCL	162/158.000; 162/175.000; 162/135.000; 162/205.000

AB Densification agent and oil-treated **cellulose fibers** are described exhibiting densification properties that are superior to oil-treated **fibers** that have not been treated with a densification agent and **cellulose fibers** that have not been treated with oil or a densification agent. The densification agent and oil treated **cellulose fibers** are useful in absorbent articles that may contain superabsorbent materials. Thus, rolls of pine fluff in sheet form were coated on one side with a solution of high-fructose corn syrup to achieve a loading of actives on a dry basis (i.e., corn syrup solids) of 5 weight%. The opposite side of the sheets were coated with a mineral oil (Superla 35) to a loading of 3 weight% oil based on the dry **fiber** content of the sheet. The resulting sheets were **fiberized** and formed into pads. The application of high-fructose corn syrup alone or in combination with an agent having at least one

- hydrogen bonding functionality to wood **pulp cellulose fibers** treated with an oil improved the densification properties of the oil-treated **fibers**.
- ST **cellulose fiber** oil treatment densification agent
medical absorbent
- IT Paraffin oils
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Superla 35; densification agent and oil-treated **cellulose fibers** for medical absorbent articles)
- IT Medical goods
(absorbents; densification agent and oil-treated **cellulose fibers** for medical absorbent articles)
- IT **Fibers**
RL: DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**cellulosic**; densification agent and oil-treated **cellulose fibers** for medical absorbent articles)
- IT Alkynes
Cyclic compounds
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(cycloalkynes; densification agent and oil-treated **cellulose fibers** for medical absorbent articles)
- IT **Cellulose pulp**
Superabsorbents
(densification agent and oil-treated **cellulose fibers** for medical absorbent articles)
- IT Alcohols, biological studies
Alkanes, biological studies
Alkenes, biological studies
Alkynes
Canola oil
Castor oil
Coconut oil
Corn oil
Cottonseed oil
Cycloalkanes
Cycloalkenes
Fatty acids, biological studies
Glycerides, biological studies
Glycols, biological studies
Jojoba oil
Linseed oil
Olive oil
Petroleum, biological studies
Safflower oil
Soybean oil
Tung oil
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(densification agent and oil-treated **cellulose fibers** for medical absorbent articles)
- IT Carbohydrates, biological studies
RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(densification agents; densification agent and oil-treated **cellulose fibers** for medical absorbent articles)
- IT Syrups (sweetening agents)
(high-fructose hydrolyzed starch, densification agent; densification

agent and oil-treated **cellulose fibers** for medical absorbent articles)

IT **Carboxylic acids, biological studies**
 RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (hydroxy; densification agent and oil-treated **cellulose fibers** for medical absorbent articles)

IT Absorbents
 (medical; densification agent and oil-treated **cellulose fibers** for medical absorbent articles)

IT Medical goods
 (pads; densification agent and oil-treated **cellulose fibers** for medical absorbent articles)

IT **Carboxylic acids, biological studies**
 RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (polycarboxylic; densification agent and oil-treated **cellulose fibers** for medical absorbent articles)

IT **Alcohols, biological studies**
 RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (polyhydric; densification agent and oil-treated **cellulose fibers** for medical absorbent articles)

IT 50-21-5, Lactic acid, biological studies 57-55-6, Propylene glycol, biological studies 111-01-3, Squalane 111-02-4, Squalene 544-76-3, Hexadecane
 RL: DEV (Device component use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (densification agent and oil-treated **cellulose fibers** for medical absorbent articles)

L107 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:568305 HCAPLUS

DN 137:110728

ED Entered STN: 31 Jul 2002

TI Manufacture of **pulp** with high bulk using no **crosslinking** agents by mercerizing **pulp** with alkali solutions and treating the **pulp** with **polyhydric alcohols**

IN Yamazaki, Yoichi; Kikuchi, Aya; Narushima, Norifumi

PA Nippon Paper Industries Co., Ltd., Japan; Nakatani Sangyo Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D21C009-00

ICS D21H011-02

CC 43-6 (**Cellulose**, Lignin, Paper, and Other Wood Products)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002212889	A2	20020731	JP 2001-4512	20010112 <--
PRAI JP 2001-4512		20010112	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002212889	ICM	D21C009-00
	ICS	D21H011-02

AB **Pulp** with high bulk is prepared by mercerizing **pulp** or **pulp** comprising chemical **pulp** or dissolving **pulp**, with alkali solns. to give mercerized **pulp** or mercerized

pulp with **cellulose II** content 50-100%, and treating the pulp with **polyhydric alcs.** Softwood bleached kraft pulp was treated with 20 g aqueous 15% NaOH per g pulp for 30 min at 20°, washed, dried, treated with 20 g aqueous solution containing 5% **pentaerythritol** per g pulp for 2 h at 70°, centrifuged, and beaten using a beater. The beaten pulp was made into paper using a papermaking machine, pressed, dried, and kept at 23° and 50% relative humidity to give paper with d. 0.214 g/cm³.

- ST **cellulose pulp** mercerization pulp bulk enhancement; **polyhydric alc** finish mercerized pulp bulk enhancement; **pentaerythritol** finish mercerized pulp bulk enhancement; paper bulk enhancement **cellulose pulp** mercerization
- IT **Cellulose pulp**
Mercerization
Paper
(manufacture of pulp with high bulk using no **crosslinking** agents by mercerizing pulp with alkali solns. and treating the pulp with **polyhydric alcs.**)
- IT **Alcohols**, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(**polyhydric**, treatment by; manufacture of pulp with high bulk using no **crosslinking** agents by mercerizing pulp with alkali solns. and treating the pulp with **polyhydric alcs.**)
- IT 1310-73-2, Sodium hydroxide, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(mercerization agent; manufacture of pulp with high bulk using no **crosslinking** agents by mercerizing pulp with alkali solns. and treating the pulp with **polyhydric alcs.**)
- IT 115-77-5, **Pentaerythritol**, uses
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(treatment by; manufacture of pulp with high bulk using no **crosslinking** agents by mercerizing pulp with alkali solns. and treating the pulp with **polyhydric alcs.**)

L107 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:329009 HCAPLUS

DN 134:328089

ED Entered STN: 09 May 2001

TI Manufacture of **crosslinked bulky pulp**

IN Takahashi, Ryoji

PA Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D21H011-20

ICS D06M013-123

CC 43-6 (**Cellulose**, Lignin, Paper, and Other Wood Products)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001123388	A2	20010508	JP 1999-292832	19991014 <--
PRAI	JP 1999-292832		19991014	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2001123388	ICM	D21H011-20
	ICS	D06M013-123
AB	The bulky pulp with no content of formalin is manufactured by crosslinking pulp with a mixture of glyoxal and polyhydric alcs. in the ratio of CHO to OH 1-10. Thus, 5.0 g pulp was treated with an aqueous crosslinking agent comprising glyoxal and pentaerythritol (CHO/OH = 1.5/1.0) and dried to give crosslinked pulp showing thickness 8.5-9.1 mm/10 cm-diameter	
ST	bulk pulp crosslinking glyoxal pentaerythritol	
IT	Cellulose pulp Crosslinking agents (manufacture of crosslinked bulky pulp without using formalin)	
IT	77-99-6, Trimethylolpropane 107-21-1, Ethylene glycol, uses 107-22-2, Glyoxal 115-77-5, Pentaerythritol , uses RL: MOA (Modifier or additive use); RCT (Reactant); RACT (Reactant or reagent); USES (Uses) (crosslinking agent ; manufacture of crosslinked bulky pulp without using formalin)	

L107 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:535340 HCAPLUS

DN 133:137002

ED Entered STN: 04 Aug 2000

TI High-wet-bulk **individualized crosslinked cellulosic fibers** and preparation thereof for absorbents

IN Jewell, Richard A.; Westland, John A.

PA **Weyerhaeuser Company, USA**

SO PCT Int. Appl., 17 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM D21C009-00

ICS D21H017-06; D06M013-123; D06M015-423

CC 43-3 (**Cellulose**, Lignin, Paper, and Other Wood Products)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000044977	A1	20000803	WO 2000-US1155	20000118
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6207278	B1	20010327	US 1999-240085	19990129
EP 1149200	A1	20011031	EP 2000-902441	20000118
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO			
TR 200101952	T2	20011221	TR 2001-200101952	20000118
BR 2000007798	A	20021015	BR 2000-7798	20000118
JP 2002535510	T2	20021022	JP 2000-596210	20000118
US 6551706	B1	20030422	US 2000-690136	20001016

US 2003008580	A1	20030109	US 2002-228792	20020827
US 6752944	B2	20040622		
US 2003108742	A1	20030612	US 2003-342513	20030115
US 6703125	B2	20040309		
PRAI US 1999-240085	A	19990129		
WO 2000-US1155	W	20000118		
US 2000-690136	A3	20001016		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000044977	ICM	D21C009-00
	ICS	D21H017-06; D06M013-123; D06M015-423
WO 2000044977	ECLA	D06M013/123; D06M013/207; D06M015/423; D21H011/20
US 6207278	NCL	428/393.000; 008/116.100; 428/364.000
	ECLA	D06M013/123; D06M013/207; D06M015/423; D21H011/20
US 6551706	NCL	428/393.000; 008/116.100; 428/364.000
	ECLA	D06M013/123; D06M013/207; D06M015/423; D21H011/20
US 2003008580	NCL	264/137.000; 162/009.000; 162/157.600; 162/182.000; 264/160.000; 264/236.000
	ECLA	D06M013/123; D06M013/207; D06M015/423; D21H011/20
US 2003108742	NCL	428/375.000; 008/116.100; 428/292.100; 428/393.000
	ECLA	D06M013/123; D06M013/207; D06M015/423; D21H011/20

AB Title **fibers** are prepared by applying a glyoxal **crosslinking** combination to a **cellulosic fibrous** sheet, separated the sheet into **individual fibers**, drying, and curing, giving **fibers** having wet bulk >.apprx.20 cc/g at 0.6 kPa. The **crosslinking** combination comprises glyoxal, a catalyst, and, optionally, a glycol and/or glyoxal resin. Thus, **cellulosic fibers crosslinked** with a glyoxal-glycol combination according to the above procedure, showed wet bulk 24.9 cc/g at 0.6 kPa, a 47% improvement over com. high-bulk **fibers**.

ST **cellulosic fiber crosslinking** absorbent;
glyoxal glycol **crosslinking cellulosic fiber**
absorbent

IT **Fibers**

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
(**cellulosic**; high-wet-bulk **individualized crosslinked cellulosic fibers** and preparation thereof for absorbents)

IT **Crosslinking agents**

(glyoxal; high-wet-bulk **individualized crosslinked cellulosic fibers** and preparation thereof for absorbents)

IT Absorbents

Crosslinking catalysts

(high-wet-bulk **individualized crosslinked cellulosic fibers** and preparation thereof for absorbents)

IT 57-55-6, Propylene glycol, uses

RL: MOA (Modifier or additive use); USES (Uses)
(**crosslinking** agent containing glyoxal; high-wet-bulk **individualized crosslinked cellulosic fibers** and preparation thereof for absorbents)

IT 57-13-6D, Urea, cyclic derivs., polymers with glyoxal, uses 107-22-2, Glyoxal 107-22-2D, Glyoxal, polymers with **polyols** and cyclic urea

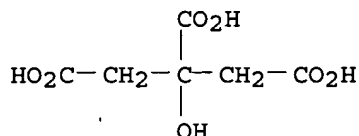
RL: MOA (Modifier or additive use); USES (Uses)
(**crosslinking** agents; high-wet-bulk **individualized crosslinked cellulosic fibers** and preparation thereof for absorbents)

IT 77-92-9, Citric acid, uses 10043-01-3,
Aluminum sulfate
RL: CAT (Catalyst use); USES (Uses)
(crosslinking catalyst; high-wet-bulk individualized
crosslinked cellulosic fibers and preparation
thereof for absorbents)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE
(1) Jewell, R; US 5366591 A 1994 HCAPLUS
(2) Sun Chemical Corp; EP 0132127 A 1985 HCAPLUS
(3) Welch, C; US 4472167 A 1984 HCAPLUS
(4) Weyerhaeuser Co; WO 8804704 A 1988 HCAPLUS

IT 77-92-9, Citric acid, uses
RL: CAT (Catalyst use); USES (Uses)
(crosslinking catalyst; high-wet-bulk individualized
crosslinked cellulosic fibers and preparation
thereof for absorbents)

RN 77-92-9 HCAPLUS
CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



L107 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:259949 HCAPLUS
DN 132:266673
ED Entered STN: 21 Apr 2000
TI Compressible wood pulp product from juvenile wood fibers
IN Quick, Robert H.; Shellhammer, Daniel M.; Hansen, Michael R.; Young,
Richard H., Sr.
PA Weyerhaeuser Company, USA
SO PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM A61F013-15
ICS D06M011-00; D06M013-00; D21H023-00
CC 43-6 (Cellulose, Lignin, Paper, and Other Wood Products)
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000021476	A1	20000420	WO 1999-US21134	19990915
W:	AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
US 6231721	B1	20010515	US 1998-169705	19981009
AU 9959237	A1	20000501	AU 1999-59237	19990915
US 2001018308	A1	20010830	US 2001-836938	20010417

US 6638884	B2	20031028		
US 2003207641	A1	20031106	US 2003-449184	20030530
US 6719862	B2	20040413		
PRAI US 1998-169705	A	19981009		
WO 1999-US21134	W	19990915		
US 2001-836938	A3	20010417		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 2000021476	ICM	A61F013-15
	ICS	D06M011-00; D06M013-00; D21H023-00
WO 2000021476	ECLA	A61F013/15E; A61F013/15E2D; D21H015/02
US 6231721	NCL	162/164.100; 162/174.000; 162/175.000; 162/179.000; 162/181.100; 162/181.200; 162/183.000; 162/184.000; 162/185.000; 442/059.000
	ECLA	A61F013/15E; A61F013/15E2D; D21H015/02
US 2001018308	NCL	442/417.000; 162/164.100; 162/174.000; 162/175.000; 162/179.000; 162/181.100; 162/183.000; 162/184.000; 162/185.000; 442/059.000; 442/394.000; 442/414.000
	ECLA	A61F013/15E; A61F013/15E2D; D21H015/02
US 2003207641	NCL	156/060.000; 156/061.000; 162/164.100; 162/174.000; 162/175.000; 162/179.000; 162/181.100; 162/181.200; 162/183.000; 162/184.000; 162/185.000; 442/059.000
	ECLA	A61F013/15E; A61F013/15E2D; D21H015/02
AB		A highly densifiable wood pulp product is disclosed. In one embodiment, the densifiable product includes fibers having low coarseness, preferably having a fiber coarseness less than about 22 mg/100 m, and a densifying agent. In another embodiment, the densifiable product further includes fibers having a coarseness greater than about 22 mg/100 m. Juvenile wood fibers are the preferred source of fibers having low coarseness. A densified pulp product formed by compacting a fibrous composite that includes fibers having a fiber coarseness less than about 22 mg/100 m, a densifying agent, and optionally, fibers having a coarseness greater than about 22 mg/100 m is also disclosed. The pulp products can be advantageously incorporated into absorbent articles and can optionally include superabsorbent material. Methods for forming the densifiable and densified fibrous products are also disclosed.
ST		juvenile wood fiber densified pulp
IT		Absorbents
		Cellulose pulp
		Diapers
		Hygroscopic substances
		(compressible wood pulp product from juvenile wood fibers)
IT		Amides, uses
		Amino acids, uses
		Carboxylic acids, uses
		Glycols, uses
		Polyamides, uses
		Polyamines
		RL: NUU (Other use, unclassified); USES (Uses)
		(compressible wood pulp product from juvenile wood fibers)
IT		Medical goods
		(incontinence devices, adult; compressible wood pulp product from juvenile wood fibers)
IT		Carboxylic acids, uses
		RL: NUU (Other use, unclassified); USES (Uses)

(polycarboxylic; compressible wood pulp product from juvenile wood fibers)

IT Carboxylic acids, uses

RL: NUU (Other use, unclassified); USES (Uses)

(salts; compressible wood pulp product from juvenile wood fibers)

IT 50-21-5, Lactic acid, uses 50-70-4, Sorbitol, uses

50-81-7, Ascorbic acid, uses 56-40-6, Glycine, uses 56-81-5, Glycerin, uses 57-55-6, Propylene glycol, uses 72-17-3, Sodium lactate

77-92-9, Citric acid, uses 107-21-1,

Ethylene glycol, uses 107-95-9, β -Alanine 110-16-7, Maleic acid,

uses 127-08-2, Potassium acetate 631-61-8, Ammonium acetate

919-16-4, Lithium citrate

RL: NUU (Other use, unclassified); USES (Uses)

(compressible wood pulp product from juvenile wood fibers)

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Altman; US 5147505 A 1992

(2) Hansen; US 5547541 A 1996 HCAPLUS

IT 50-70-4, Sorbitol, uses 77-92-9,

Citric acid, uses

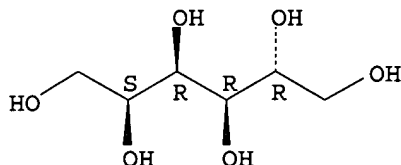
RL: NUU (Other use, unclassified); USES (Uses)

(compressible wood pulp product from juvenile wood fibers)

RN 50-70-4 HCAPLUS

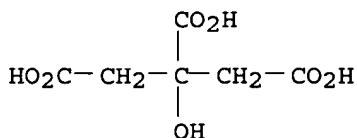
CN D-Glucitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 77-92-9 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



L107 ANSWER 9 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:138928 HCAPLUS

DN 132:167865

ED Entered STN: 01 Mar 2000

TI Crosslinked cellulose membranes and production methods therefor

IN Hongo, Tomoko; Saito, Masatoshi

PA Asahi Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DT Patent
 LA Japanese
 IC ICM B01D071-10
 CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000061277	A2	20000229	JP 1998-232753	19980819 <--
PRAI	JP 1998-232753		19980819	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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JP 2000061277	ICM	B01D071-10
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AB Durable pressure-resistant membranes having good water permeability and separation properties are prepared from **cellulose**, OH group-reactive **crosslinking** agents, catalysts, and pore retention agents of **polyhydric alcs.** Thus, a regenerated **cellulose** membrane was immersed in water containing polyethylene glycol 30, N,N'-dimethyloldihydroxyethyleneurea 1, and MgCl₂ 2%, sandwiched between filter paper to remove the excess liquid, and heated to prepare a **crosslinked** membrane.

ST **cellulose** methyloldihydroxyethyleneurea copolymer membrane;
crosslinking cellulose membrane
 methyloldihydroxyethyleneurea; magnesium chloride **crosslinking**
 catalyst **cellulose**; pore retention agent polyethylene glycol

IT **Crosslinking agents**
Crosslinking catalysts
 Membranes, nonbiological
 Pore

(**crosslinking** agents and catalysts and pore retention agents
 in manufacture of **crosslinked cellulose** membranes)

IT Polyoxyalkylenes, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (**crosslinking** agents and catalysts and pore retention agents
 in manufacture of **crosslinked cellulose** membranes)

IT **Alcohols**, uses
 RL: MOA (Modifier or additive use); USES (Uses)
 (**polyhydric**; **crosslinking** agents and catalysts and
 pore retention agents in manufacture of **crosslinked**
cellulose membranes)

IT 7786-30-3, Magnesium chloride (MgCl₂), uses
 RL: CAT (Catalyst use); USES (Uses)
 (**crosslinking** agents and catalysts and pore retention agents
 in manufacture of **crosslinked cellulose** membranes)

IT 179669-49-9P, **Cellulose**-dimethyloldihydroxyethyleneurea
 copolymer
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical
 process); TEM (Technical or engineered material use); PREP (Preparation);
 PROC (Process); USES (Uses)

(**crosslinking** agents and catalysts and pore retention agents
 in manufacture of **crosslinked cellulose** membranes)

IT 56-81-5, Glycerin, uses 107-21-1, Ethylene glycol, uses 25322-68-3,
 Polyethylene glycol
 RL: MOA (Modifier or additive use); USES (Uses)

(**crosslinking** agents and catalysts and pore retention agents
 in manufacture of **crosslinked cellulose** membranes)

IT 179669-49-9P, **Cellulose**-dimethyloldihydroxyethyleneurea
 copolymer
 RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical
 process); TEM (Technical or engineered material use); PREP (Preparation);

PROC (Process); USES (Uses)

(crosslinking agents and catalysts and pore retention agents
in manufacture of **crosslinked cellulose** membranes)

RN 179669-49-9 HCAPLUS

CN Cellulose, polymer with 4,5-dihydroxy-1,3-bis(hydroxymethyl)-2-imidazolidinone (9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

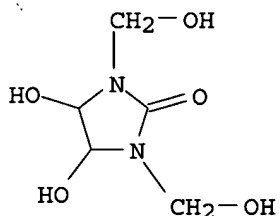
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 1854-26-8

CMF C5 H10 N2 O5



L107 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:640301 HCAPLUS

DN 129:261717

ED Entered STN: 09 Oct 1998

TI Water-soluble binder compositions and water-dispersible **fibrous fabrics** therein

IN Pomplun, William Seal; Mumick, Pavneet Singh; Jackson, David Martin; Chang, Yihua

PA Kimberly-Clark Worldwide, Inc., USA

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C08L033-02

ICS D04H001-64

CC 40-10 (Textiles and Fibers)

Section cross-reference(s): 43, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9841577	A1	19980924	WO 1998-US5022	19980313 <--
	W:	AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
	RW:	GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM,			

	GA, GN, ML, MR, NE, SN, TD, TG			
US 5986004	A	19991116	US 1997-819246	19970317 <--
AU 9864645	A1	19981012	AU 1998-64645	19980313 <--
US 6194517	B1	20010227	US 1999-412220	19991005 <--
PRAI US 1997-819246	A	19970317	<--	
WO 1998-US5022	W	19980313	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9841577	ICM	C08L033-02
	ICS	D04H001-64
WO 9841577	ECLA	C08K005/09+L33/06B2; C08K005/1575+L33/06B2; C08K005/17+L33/06B2; C08K005/5317+L33/06B2; C09D133/06B2+F; C09D133/06B2+C; D04H001/64A <--
US 5986004	NCL	525/176.000; 442/059.000; 442/152.000; 442/155.000; 442/165.000; 442/166.000; 442/167.000; 442/168.000; 442/381.000; 442/400.000; 442/401.000
	ECLA	C08K005/09+L33/06B2; C08K005/1575+L33/06B2; C08K005/17+L33/06B2; C08K005/5317+L33/06B2; C09D133/06B2+C; C09D133/06B2+F; D04H001/64A <--
US 6194517	NCL	525/176.000; 442/059.000; 442/152.000; 442/155.000; 442/165.000; 442/166.000; 442/167.000; 442/168.000; 442/381.000; 442/400.000; 442/401.000
	ECLA	D04H001/64A <--

AB The composition, useful for personal care products such as sanitary napkins, diaper, wipe, etc. (no data), comprises from 25-90 parts unsatd. **carboxylic acid/unsatd. carboxylic acid ester** terpolymer, 10-75 parts divalent ion inhibitor and 0-10 parts plasticizer, and is soluble in an aqueous environment having divalent ion concentration <50 ppm and

monovalent ion concentration <0.5 wt%. The water-dispersible **fibrous fabric** has a **fibrous** substrate and the above binder distributed on the substrate. Thus, 7 g water-dispersion containing SSB 3b (unsatd. **carboxylic acid/unsatd. carboxylic acid ester** terpolymer) 52.6, L 9158 (divalent ion inhibitor) 42.8 and noncrystg. grade **sorbitol** 4.6%, was sprayed on both side of a **fibrous** substrate containing 86 g Weyerhaeuser NB 420 **pulp**, showing stable in an aqueous solution having 0.85% NaCl and 30 ppm CaCl₂, and dispersible in cold tap water.

ST binder compn **fibrous fabric** water soly; personal care product nonwoven **fabric**; sanitary napkin water soluble **fibrous fabric**; diaper water soluble **fibrous fabric**; garment incontinence water soluble **fibrous fabric**; unsatd **carboxylic acid ester** terpolymer binder; divalent ion inhibitor binder **fibrous fabric**

IT Polypropene **fibers**, miscellaneous
RL: MSC (Miscellaneous)
(**cemfiber**, substrates; water-dispersible **fibrous fabrics** containing water-soluble binder compns.)

IT Amino acids, uses
Polyphosphates
RL: MOA (Modifier or additive use); USES (Uses)
(divalent ion inhibitor; water-dispersible **fibrous fabrics** containing water-soluble binder compns.)

IT **Carboxylic acids, uses**
RL: MOA (Modifier or additive use); USES (Uses)
(**hydroxy**, divalent ion inhibitor; water-dispersible **fibrous fabrics** containing water-soluble binder compns.)

IT Clothing
(incontinence; water-dispersible **fibrous fabrics**)

- containing water-soluble binder compns. for)
- IT Amines, uses
RL: MOA (Modifier or additive use); USES (Uses)
(polyamines, nonpolymeric, divalent ion inhibitor; water-dispersible **fibrous fabrics** containing water-soluble binder compns.)
- IT Rayon, miscellaneous
RL: MSC (Miscellaneous)
(reconstituted, lyocell, substrates; water-dispersible **fibrous fabrics** containing water-soluble binder compns.)
- IT Medical goods
(sanitary napkins; water-dispersible **fibrous fabrics** containing water-soluble binder compns. for)
- IT Cellulose pulp
Nonwoven **fabrics**
(substrates; water-dispersible **fibrous fabrics** containing water-soluble binder compns.)
- IT Fibers
RL: MSC (Miscellaneous)
(substrates; water-dispersible **fibrous fabrics** containing water-soluble binder compns.)
- IT Polyesters, uses
RL: MOA (Modifier or additive use); USES (Uses)
(sulfo-containing, divalent ion inhibitor; water-dispersible **fibrous fabrics** containing water-soluble binder compns.)
- IT Carboxylic acids, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(unsatd., esters, polymers; water-dispersible **fibrous fabrics** containing water-soluble binder compns.)
- IT Carboxylic acids, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(unsatd., polymers; water-dispersible **fibrous fabrics** containing water-soluble binder compns.)
- IT Binders
(water-dispersible **fibrous fabrics** containing water-soluble binder compns.)
- IT Acrylic polymers, uses
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)
(water-dispersible **fibrous fabrics** containing water-soluble binder compns.)
- IT Diapers
(water-dispersible **fibrous fabrics** containing water-soluble binder compns. for)
- IT 9003-07-0, Polypropylene
RL: MSC (Miscellaneous)
(**cemfiber**, substrate; water-dispersible **fibrous fabrics** containing water-soluble binder compns.)
- IT 60-00-4, Ethylene diaminetetraacetic acid, uses 77-92-9, uses 139-13-9, Nitrilotriacetic acid 1429-50-1, Ethylene diaminetetra(methylene phosphonic acid) 7758-29-4, Sodium tripolyphosphate 13598-36-2, Phosphonic acid 54590-62-4, AQ 29D 54590-72-6, Eastman AQ 55D 61910-89-2, AQ 38D 213543-51-2, L 9158
RL: MOA (Modifier or additive use); USES (Uses)
(divalent ion inhibitor; water-dispersible **fibrous fabrics** containing water-soluble binder compns.)
- IT 213544-40-2, SSB 3B
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(water-dispersible **fibrous fabrics** containing
water-soluble binder compns.)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Hitachi Chemical Co Ltd; EP 0659848 A 1995 HCAPLUS

(2) Rohm & Haas; EP 0837110 A 1998 HCAPLUS

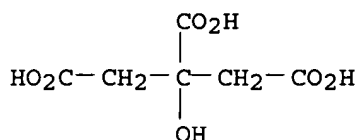
(3) Sankyo Co; EP 0122815 A 1984 HCAPLUS

IT 77-92-9, uses

RL: MOA (Modifier or additive use); USES (Uses)
(divalent ion inhibitor; water-dispersible **fibrous
fabrics** containing water-soluble binder compns.)

RN 77-92-9 HCAPLUS

CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



L107 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1996:535114 HCAPLUS

DN 125:250733

ED Entered STN: 07 Sep 1996

TI Agents for densifying **fibers** and their uses

IN Hansen, Michael R.; Young, Richard H., Sr.

PA **Weyerhaeuser Co., USA**

SO U.S., 47 pp., Cont.-in-part of U.S. Ser. No. 931, 059.

CODEN: USXXAM

DT Patent

LA English

IC ICM D21H023-08

INCL 162012000

CC 43-6 (**Cellulose**, Lignin, Paper, and Other Wood Products)

Section cross-reference(s): 38, 63

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5547541	A	19960820	US 1994-197483	19940216
	US 5308896	A	19940503	US 1992-931284	19920817
	US 5589256	A	19961231	US 1992-931279	19920817
	EP 1217120	A1	20020626	EP 2002-6487	19930816
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
	EP 1219744	A1	20020703	EP 2002-7034	19930816
	EP 1219744	B1	20041020		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
	ES 2181693	T3	20030301	ES 1993-920180	19930816
	ES 2182830	T3	20030316	ES 1993-920179	19930816
	ES 2230413	T3	20050501	ES 2002-7034	19930816
	US 5447977	A	19950905	US 1993-153819	19931115
	US 5609727	A	19970311	US 1994-193301	19940207
	CA 2181476	AA	19950824	CA 1995-2181476	19950215
	CA 2181476	C	20030325		
	CA 2412892	AA	19950824	CA 1995-2412892	19950215
	CA 2412892	C	20050104		
	WO 9522655	A1	19950824	WO 1995-US1982	19950215
	W: AU, BR, CA, JP, KR, MX, NZ				

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE			
AU 9519213	A1	19950904	AU 1995-19213 19950215
EP 745160	A1	19961204	EP 1995-911770 19950215
EP 745160	B1	20030402	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE			
JP 09509226	T2	19970916	JP 1995-521917 19950215
AT 236295	E	20030415	AT 1995-911770 19950215
ES 2197916	T3	20040116	ES 1995-911770 19950215
US 5614570	A	19970325	US 1995-416338 19950404
US 5611885	A	19970318	US 1995-486353 19950607
US 5789326	A	19980804	US 1996-752622 19961119
US 2002025435	A1	20020228	US 1998-35636 19980304
US 6391453	B2	20020521	
US 6071549	A	20000606	US 1998-130723 19980806
US 6340411	B1	20020122	US 1998-167995 19981007
US 6521339	B1	20030218	US 2000-574633 20000518
US 6596103	B1	20030722	US 2000-704328 20001101
US 2001021453	A1	20010913	US 2001-842615 20010426
US 2002096291	A1	20020725	US 2001-848759 20010503
US 6425979	B2	20020730	
US 2002096292	A1	20020725	US 2001-849098 20010504
US 6521087	B2	20030218	
US 2002164375	A1	20021107	US 2002-100858 20020318
US 6627249	B2	20030930	
US 2003201051	A1	20031030	US 2003-434507 20030507
PRAI US 1992-931059	A2	19920817	
US 1992-931213	A2	19920817	
US 1992-931277	XX	19920817	
US 1992-931278	A2	19920817	
US 1992-931279	XX	19920817	
US 1992-931284	A2	19920817	
US 1993-107467	XX	19930817	
US 1993-107469	XX	19930817	
US 1993-108217	XX	19930817	
US 1993-108218	XX	19930817	
US 1993-108219	XX	19930817	
US 1994-192682	A2	19940207	
EP 1993-920179	A3	19930816	
EP 1993-920180	A3	19930816	
US 1993-153819	A1	19931115	
US 1994-181494	B1	19940112	
US 1994-193301	A2	19940207	
US 1994-197483	A	19940216	
US 1994-261811	A2	19940717	
CA 1995-2181476	A3	19950215	
WO 1995-US1982	W	19950215	
US 1995-416375	A3	19950404	
US 1995-486686	B1	19950607	
US 1996-675803	A1	19960705	
US 1996-693517	B3	19960802	
US 1997-791335	A3	19970131	
US 1998-35636	A1	19980304	
US 1998-167995	A1	19981007	
US 1999-455080	A3	19991206	
US 2000-704328	A1	20001101	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5547541	ICM	D21H023-08
	INCL	162012000

US 5547541	NCL	162/012.000; 162/158.000; 162/166.000; 162/168.100; 162/181.100; 162/184.000
	ECLA	A61F013/00; A61F013/15E; A61L015/22; A61L015/60; D04H001/64A; D04H001/64C; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16; D21H021/22
US 5308896	NCL	524/013.000; 428/372.000; 523/204.000; 523/205.000; 523/206.000; 523/207.000; 523/208.000; 523/209.000; 523/215.000; 523/216.000; 523/217.000
	ECLA	A61F013/00; D21H011/16; A61F013/15E; A61L015/60; D06M023/00; D06M023/08
US 5589256	NCL	442/417.000; 008/115.510; 008/115.540; 008/115.600; 008/115.700; 008/116.400; 008/120.000; 008/127.600; 008/128.100; 008/186.000; 019/145.000; 019/148.000; 019/304.000; 038/144.000; 156/062.600; 156/062.800; 156/296.000; 156/305.000; 162/136.000; 162/141.000; 162/157.600; 162/158.000; 162/159.000; 162/161.000; 162/163.000; 162/182.000; 162/184.000; 162/205.000; 424/402.000; 424/403.000; 424/404.000; 427/180.000; 427/196.000; 427/212.000; 427/214.000; 427/336.000; 427/365.000; 427/392.000; 427/394.000; 427/396.000; 427/402.000; 428/074.000; 428/076.000; 428/361.000; 428/372.000; 428/380.000; 428/902.000; 604/304.000; 604/307.000; 604/365.000; 604/367.000; 604/374.000; 604/375.000; 604/378.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16
EP 1217120	ECLA	A61F013/15E; A61L015/60; D04H001/64A; D06M023/08
EP 1219744	ECLA	A61F013/15E; A61L015/60; D04H001/64A; D06M023/08
US 5447977	NCL	524/013.000; 428/372.000; 523/204.000; 523/205.000; 523/206.000; 523/207.000; 523/208.000; 523/215.000; 523/216.000; 523/217.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16
US 5609727	NCL	162/184.000; 162/158.000; 162/185.000; 428/147.000; 428/394.000; 604/367.000; 604/378.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16
WO 9522655	ECLA	A61L015/22; D04H001/64C; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/08; D21H021/22
US 5614570	NCL	524/013.000; 428/372.000; 523/204.000; 523/205.000; 523/206.000; 523/207.000; 523/208.000; 523/215.000; 523/216.000; 523/217.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16
US 5611885	NCL	156/326.000; 156/327.000; 156/336.000; 427/180.000; 427/201.000; 427/374.100; 427/375.000; 427/389.900; 427/392.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08;

		D21H011/16
US 5789326	NCL	442/059.000; 008/115.510; 008/115.540; 008/115.600; 008/115.700; 008/116.400; 008/120.000; 008/127.600; 008/128.100; 008/186.000; 019/145.000; 019/148.000; 019/304.000; 156/062.600; 156/062.800; 156/296.000; 156/305.000; 162/136.000; 162/141.000; 162/157.600; 162/158.000; 162/159.000; 162/161.000; 162/163.000; 162/182.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08
US 2002025435	NCL	428/403.000; 442/417.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16
US 6071549	NCL	427/002.310; 427/180.000; 427/202.000; 427/337.000; 427/342.000; 427/369.000; 427/394.000
	ECLA	A61F013/15E; A61L015/60; D04H001/64A; D06M023/08
US 6340411	NCL	162/173.000; 162/179.000; 428/497.000; 428/532.000
	ECLA	A61F013/00; A61F013/15E; A61L015/22; A61L015/60; D04H001/64A; D04H001/64C; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16; D21H021/22
US 6521339	NCL	428/378.000; 428/393.000; 428/407.000; 442/417.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16
US 6596103	NCL	156/062.200; 156/305.000; 156/326.000; 162/135.000; 427/180.000
	ECLA	A61F013/00; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16; A61F013/15E; A61L015/60; D04H001/64A
US 2001021453	NCL	428/407.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16
US 2002096291	NCL	162/173.000; 162/185.000; 162/221.000; 428/357.000; 523/204.000; 524/013.000
	ECLA	A61F013/00; D04H001/64A; D04H001/64C; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16; D21H021/22; A61F013/15E; A61L015/22; A61L015/60
US 2002096292	NCL	162/173.000; 162/183.000; 162/185.000; 162/221.000
	ECLA	A61F013/00; A61F013/15E; A61L015/22; A61L015/60; D04H001/64A; D04H001/64C; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16; D21H021/22
US 2002164375	NCL	427/002.310; 427/180.000; 427/201.000; 427/222.000
	ECLA	A61F013/00; A61F013/15E; A61L015/42; A61L015/48; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16
US 2003201051	NCL	156/062.200; 156/305.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08;

D21H011/16

- AB The densifying agents can be organic or inorg. and are denser than the **fibers** to which they are applied and especially useful for making absorbent **fibers** for use in sanitary products, etc., where **fibers** treated with the agents have improved H bonding ability that assists the **fibers** in retaining modifiers such as hydrogels. Examples of the agents are glycerin, **polycarboxylates**, polylactone **polyol**, lactose, etc.
- ST binding **cellulosic fiber** densification agent; hydrogen bonding **fiber** densification agent; polylactone binder densification **fiber**; polyamine binder densification **fiber**; glycerin binder densification **fiber**; lactose binder densification **fiber**; **polycarboxylate** binder densification **fiber**; polyamide binder densification **fiber**; absorbent **fiber** densification agent
- IT **Pulp, cellulose**
(agents for densification of **fibers** and their uses)
- IT Hydrogen bond
(agents for improving; in densification of **fibers**)
- IT Densification
(agents; for **fibers** useful for absorbents)
- IT Polyelectrolytes
(binder/densifier; agents for densification of **fibers**)
- IT Amides, uses
Amines, uses
Polyamides, uses
Polyoxyalkylenes, uses
Sulfonamides
Sulfonic acids, uses
RL: MOA (Modifier or additive use); USES (Uses)
(binder/densifier; agents for densification of **fibers**)
- IT Glycols, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(binder/densifier; agents for densification of **fibers**)
- IT Diapers
(densifying agents for improving retention on **fibers** of absorbents for making)
- IT Zeolites, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(deodorants; densifying agents for improving retention on **fibers** of)
- IT Absorbents
(for water; densifying agents for improving retention on **fibers** of)
- IT Gels
(hydro-, densifying agents for improving retention on **fibers** of)
- IT Amines, uses
Carboxylic acids, uses
RL: MOA (Modifier or additive use); USES (Uses)
(**poly-**, binder/densifier; agents for densification of **fibers**)
- IT Medical goods
(sanitary napkins, densifying agents for improving retention on **fibers** of absorbents for making)
- IT 9002-88-4, Polyethylene
RL: TEM (Technical or engineered material use); USES (Uses)
(binder **fibers**; densifying agents for improving retention on **fibers** of modifiers)
- IT 50-21-5, Lactic acid, uses 50-70-4, **Sorbitol**, uses

50-81-7, L-Ascorbic acid, uses 50-99-7, Glucose, uses 56-81-5, Glycerin, uses 57-13-6, Urea, uses 57-55-6, Propylene glycol, uses 63-42-3, Lactose 115-77-5, **Pentaerythritol**, uses 7320-34-5, Tetrapotassium pyrophosphate 7558-79-4D, Dibasic sodium phosphate, **polyol** derivs. 7664-38-2, Phosphoric acid, uses 7722-88-5, Tetrasodium pyrophosphate 9002-98-6 9003-01-4, Poly(acrylic acid) 9003-11-6, Ethylene oxide-propylene oxide copolymer 10043-01-3, Aluminum sulfate 13597-72-3, Phosphoramidate 25322-69-4, Polypropylene glycol 25718-94-9, Polyglycine 25734-27-4, Polyglycine 26913-06-4, Poly[imino(1,2-ethanediyl)] 146480-07-1, PN-3666H 159074-51-8, IM-1000F

RL: MOA (Modifier or additive use); USES (Uses)
(binder/densifier; agents for densification of **fibers**)

IT 144-62-7, Oxalic acid, uses

RL: MOA (Modifier or additive use); USES (Uses)
(binder/densifier; densifying agents for improving retention on **fibers** of)

IT 82375-64-2, Favors AB

RL: TEM (Technical or engineered material use); USES (Uses)
(binder/densifier; densifying agents for improving retention on **fibers** of)

IT 139-33-3, EDTA disodium salt 144-55-8, Sodium bicarbonate, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(densifying agents for improving retention on **fibers** of)

IT 158191-36-7, Favor 800

RL: TEM (Technical or engineered material use); USES (Uses)
(hydrogel; densifying agents for improving retention on **fibers** of)

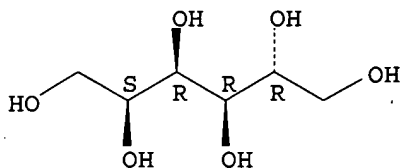
IT 50-70-4, **Sorbitol**, uses

RL: MOA (Modifier or additive use); USES (Uses)
(binder/densifier; agents for densification of **fibers**)

RN 50-70-4 HCAPLUS

CN D-Glucitol (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L107 ANSWER 12 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1995:503092 HCAPLUS

DN 122:242618

ED Entered STN: 22 Apr 1995

TI **Defibered cellulose** product, its preparation and absorptive pads from

IN Norlander, Leif

PA Sotra Kopparbergs Bergslags Aktiebolag, Swed.

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM D21H011-20

ICS D21H017-06; A61L015-16

CC 43-3 (**Cellulose**, Lignin, Paper, and Other Wood Products)

Section cross-reference(s): 63

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9500703	A1	19950105	WO 1994-SE613	19940621 <--
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
SE 9302166	A	19941224	SE 1993-2166	19930623 <--
SE 502387	C2	19951009		
CA 2164310	AA	19950105	CA 1994-2164310	19940621 <--
AU 9470895	A1	19950117	AU 1994-70895	19940621 <--
EP 705365	A1	19960410	EP 1994-919951	19940621 <--
EP 705365	B1	19980819		
R: DE, FR				
RU 2129629	C1	19990427	RU 1996-100765	19940621 <--
US 5779857	A	19980714	US 1995-553539	19951130 <--
FI 9506080	A	19960117	FI 1995-6080	19951218 <--
FI 100812	B1	19980227		
PRAI SE 1993-2166	A	19930623	<--	
WO 1994-SE613	W	19940621	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9500703	ICM	D21H011-20
	ICS	D21H017-06; A61L015-16
WO 9500703	ECLA	A61L015/28+C08L1/00; D04H001/42; D06M013/123; D06M013/148; D06M013/192; D06M013/35; D06M013/432; D21H011/20; D21H017/06
US 5779857	NCL	162/157.600; 008/115.510; 008/116.100; 162/009.000; 162/182.000
	ECLA	D06M013/123; D06M013/148; D06M013/192; D06M013/35; D06M013/432

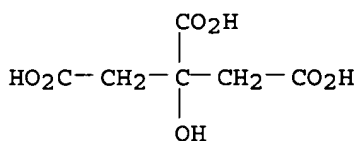
AB Title product, in particular fluff **pulp**, has a **fiber** structure having good compressibility under heat and pressure, which structure can be obtained by **crosslinking**, in the dry state, **defibrated cellulose fibers** impregnated with a **crosslinking** agent and ≥ 1 bifunctional, trifunctional or polyfunctional alc. The product can be formed having high d. and can be used in equipment now available for producing diapers and incontinence pads, as well as in machines for manufacture of sanitary towels and air-formed paper. A bleached softwood fluff **pulp** sheet was impregnated with a solution containing **citric acid**, glycerol, and disodium phosphate **crosslinking** catalyst, pressed, dried, conditioned, **defibrated**, heated in a warm air oven, and formed into test pieces having d. 132 kg/m³, specific volume wet 8.64 dm³/kg, and absorption capacity 8.3 g/g, compared to 96, 10.07, and 9.80, resp., for a fluff **crosslinked** in the absence of glycerol.

ST **pulp crosslinking polyol** absorbent dense;
citric acid crosslinking pulp polyol; diaper **pulp crosslinked** absorbent dense

IT **Pulp, cellulose**
(**defibered** and **crosslinked**, method for its preparation and absorptive pads from)

IT Absorbents
Diapers
(**defibered cellulose** product for absorptive pads)

- IT **Crosslinking agents**
Crosslinking catalysts
(for defibered cellulose product for absorptive pads)
- IT Glycols, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(for defibered cellulose product for absorptive pads)
- IT Aldehydes, reactions
Carboxylic acids, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(poly-, crosslinking agent; for defibered cellulose product for absorptive pads)
- IT **Alcohols, reactions**
RL: RCT (Reactant); RACT (Reactant or reagent)
(polyhydric, for defibered cellulose product for absorptive pads)
- IT 77-92-9, Citric acid, reactions 3720-97-6, Dihydroxyethyleneurea 3923-79-3, Arkofix NZF
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking agent; for defibered cellulose product for absorptive pads)
- IT 497-19-8, Disodium carbonate, uses 7558-79-4, Disodium phosphate 7705-08-0, Iron trichloride, uses 13755-29-8, Sodium fluoroborate
RL: CAT (Catalyst use); USES (Uses)
(crosslinking catalyst; for defibered cellulose product for absorptive pads)
- IT 56-81-5, Glycerol, reactions 77-85-0, 2-(Hydroxymethyl)-2-methyl-1,3-propanediol 111-46-6, Diethylene glycol, reactions 112-27-6, Triethylene glycol
RL: RCT (Reactant); RACT (Reactant or reagent)
(for defibered cellulose product for absorptive pads)
- IT 77-92-9, Citric acid, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(crosslinking agent; for defibered cellulose product for absorptive pads)
- RN 77-92-9 HCAPLUS
- CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



L107 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1994:682500 HCAPLUS
DN 121:282500
ED Entered STN: 10 Dec 1994
TI Binders for binding particles to **fibers**
IN Hansen, Michael R.; Young, Richard H.
PA **Weyerhaeuser Co., USA**
SO PCT Int. Appl., 127 pp.
CODEN: PIXXD2
DT Patent
LA English

IC ICM B32B005-16

ICS A61F013-15; B27N003-00

CC 43-6 (Cellulose, Lignin, Paper, and Other Wood Products)

Section cross-reference(s): 63

FAN.CNT 6

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9404352	A1	19940303	WO 1993-US7781	19930816
	W: AU, BR, CA, JP, KR, NZ				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5308896	A	19940503	US 1992-931284	19920817
	US 5589256	A	19961231	US 1992-931279	19920817
	AU 9350199	A1	19940315	AU 1993-50199	19930816
	EP 655971	A1	19950607	EP 1993-920180	19930816
	EP 655971	B1	20020925		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 08500271	T2	19960116	JP 1994-506514	19930816
	JP 3539957	B2	20040707		
	BR 9306921	A	19990112	BR 1993-6921	19930816
	EP 1217120	A1	20020626	EP 2002-6487	19930816
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
	EP 1219744	A1	20020703	EP 2002-7034	19930816
	EP 1219744	B1	20041020		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
	AT 224808	E	20021015	AT 1993-920180	19930816
	ES 2181693	T3	20030301	ES 1993-920180	19930816
	ES 2182830	T3	20030316	ES 1993-920179	19930816
	AT 280264	E	20041115	AT 2002-7034	19930816
	ES 2230413	T3	20050501	ES 2002-7034	19930816
	US 5447977	A	19950905	US 1993-153819	19931115
	US 5609727	A	19970311	US 1994-193301	19940207
	US 5614570	A	19970325	US 1995-416338	19950404
	US 2002025435	A1	20020228	US 1998-35636	19980304
	US 6391453	B2	20020521		
	US 6521339	B1	20030218	US 2000-574633	20000518
	US 6596103	B1	20030722	US 2000-704328	20001101
	US 2001021453	A1	20010913	US 2001-842615	20010426
	US 2002164375	A1	20021107	US 2002-100858	20020318
	US 6627249	B2	20030930		
	US 2003201051	A1	20031030	US 2003-434507	20030507
PRAI	US 1992-931059	A	19920817		
	US 1992-931213	A	19920817		
	US 1992-931277	A	19920817		
	US 1992-931278	A	19920817		
	US 1992-931279	A	19920817		
	US 1992-931284	A	19920817		
	EP 1993-920179	A3	19930816		
	EP 1993-920180	A3	19930816		
	WO 1993-US7781	W	19930816		
	US 1993-107467	A2	19930817		
	US 1993-107469	A2	19930817		
	US 1993-108217	A2	19930817		
	US 1993-108218	A3	19930817		
	US 1993-108219	A2	19930817		
	US 1993-153819	A1	19931115		
	US 1994-181494	B1	19940112		
	US 1995-486686	B1	19950607		
	US 1996-675803	A1	19960705		
	US 1997-791335	A3	19970131		
	US 1998-35636	A1	19980304		

US 1999-455080
US 2000-704328

A3 19991206
A1 20001101

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
WO 9404352	ICM	B32B005-16
	ICS	A61F013-15; B27N003-00
US 5308896	NCL	524/013.000; 428/372.000; 523/204.000; 523/205.000; 523/206.000; 523/207.000; 523/208.000; 523/209.000; 523/215.000; 523/216.000; 523/217.000
	ECLA	A61F013/00; D21H011/16; A61F013/15E; A61L015/60; D06M023/00; D06M023/08
US 5589256	NCL	442/417.000; 008/115.510; 008/115.540; 008/115.600; 008/115.700; 008/116.400; 008/120.000; 008/127.600; 008/128.100; 008/186.000; 019/145.000; 019/148.000; 019/304.000; 038/144.000; 156/062.600; 156/062.800; 156/296.000; 156/305.000; 162/136.000; 162/141.000; 162/157.600; 162/158.000; 162/159.000; 162/161.000; 162/163.000; 162/182.000; 162/184.000; 162/205.000; 424/402.000; 424/403.000; 424/404.000; 427/180.000; 427/196.000; 427/212.000; 427/214.000; 427/336.000; 427/365.000; 427/392.000; 427/394.000; 427/396.000; 427/402.000; 428/074.000; 428/076.000; 428/361.000; 428/372.000; 428/380.000; 428/902.000; 604/304.000; 604/307.000; 604/365.000; 604/367.000; 604/374.000; 604/375.000; 604/378.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16
EP 1217120	ECLA	A61F013/15E; A61L015/60; D04H001/64A; D06M023/08
EP 1219744	ECLA	A61F013/15E; A61L015/60; D04H001/64A; D06M023/08
US 5447977	NCL	524/013.000; 428/372.000; 523/204.000; 523/205.000; 523/206.000; 523/207.000; 523/208.000; 523/215.000; 523/216.000; 523/217.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16
US 5609727	NCL	162/184.000; 162/158.000; 162/185.000; 428/147.000; 428/394.000; 604/367.000; 604/378.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16
US 5614570	NCL	524/013.000; 428/372.000; 523/204.000; 523/205.000; 523/206.000; 523/207.000; 523/208.000; 523/215.000; 523/216.000; 523/217.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16
US 2002025435	NCL	428/403.000; 442/417.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288; D06M013/292; D06M013/342; D06M023/00; D06M023/08; D21H011/16
US 6521339	NCL	428/378.000; 428/393.000; 428/407.000; 442/417.000
	ECLA	A61F013/00; A61F013/15E; A61L015/60; D04H001/64A; D06M013/184; D06M013/256; D06M013/285; D06M013/288;

D06M013/292; D06M013/342; D06M023/00; D06M023/08;
 D21H011/16
 US 6596103 NCL 156/062.200; 156/305.000; 156/326.000; 162/135.000;
 427/180.000
 ECLA A61F013/00; D06M013/184; D06M013/256; D06M013/285;
 D06M013/288; D06M013/292; D06M013/342; D06M023/00;
 D06M023/08; D21H011/16; A61F013/15E; A61L015/60;
 D04H001/64A
 US 2001021453 NCL 428/407.000
 ECLA A61F013/00; A61F013/15E; A61L015/60; D04H001/64A;
 D06M013/184; D06M013/256; D06M013/285; D06M013/288;
 D06M013/292; D06M013/342; D06M023/00; D06M023/08;
 D21H011/16
 US 2002164375 NCL 427/002.310; 427/180.000; 427/201.000; 427/222.000
 ECLA A61F013/00; A61F013/15E; A61L015/42; A61L015/48;
 A61L015/60; D04H001/64A; D06M013/184; D06M013/256;
 D06M013/285; D06M013/288; D06M013/292; D06M013/342;
 D06M023/00; D06M023/08; D21H011/16
 US 2003201051 NCL 156/062.200; 156/305.000
 ECLA A61F013/00; A61F013/15E; A61L015/60; D04H001/64A;
 D06M013/184; D06M013/256; D06M013/285; D06M013/288;
 D06M013/292; D06M013/342; D06M023/00; D06M023/08;
 D21H011/16
 AB The title binders have functional groups capable of forming H bonding or
 coordinate covalent bonding between **fibers** such as
cellulose pulp and particles such as absorbents.
Fibers containing particles bound by the binders are easily densified.
 A binder from polycaprolactone diol was used to bind southern bleached
 kraft fluff and starch graft polyacrylate hydrogel fines.
 ST hydrogen bonding binder **pulp** absorbent product; coordinate
 covalent bonding binder **pulp fiber**; polycaprolactone
 diol binder hydrogel bonding **fiber**
 IT **Pulp, cellulose**
 (binders for adhering absorptive particles on, by hydrogen or
 coordinate covalent bonding)
 IT Amides, uses
 Amines, uses
 Carbohydrates and Sugars, uses
 Peptides, uses
 Phosphates, uses
 Polyamides, uses
 Sulfonates
 RL: USES (Uses)
 (binders, for adhering absorptive particles on **cellulose**
fibers by hydrogen or coordinate covalent bonding)
 IT Polyesters, uses
 RL: TEM (Technical or engineered material use); USES (Uses)
 (binders, for adhering absorptive particles on **cellulose**
fibers by hydrogen or coordinate covalent bonding)
 IT Binding materials
 (for adhering absorptive particles on **cellulose**
fibers, by hydrogen or coordinate covalent bonding)
 IT Hydrogen bond
 (formation of, between **cellulosic fibers**, binders
 and additive particles)
 IT Diapers
 (disposable, absorbents for, supported on **fibers** by hydrogen
 or coordinate covalent bonding, binders for making)
 IT Amines, uses
Carboxylic acids, uses

RL: USES (Uses)
 (poly-, binders, for adhering absorptive particles on **cellulose fibers** by hydrogen or coordinate covalent bonding)

IT **Alcohols**, uses
 RL: USES (Uses)
 (polyhydric, binders, for adhering absorptive particles on **cellulose fibers** by hydrogen or coordinate covalent bonding)

IT **Sulfonic acids**, uses
 RL: USES (Uses)
 (polymers, binders, for adhering absorptive particles on **cellulose fibers** by hydrogen or coordinate covalent bonding)

IT **Medical goods**
 (sanitary napkins, absorbents for, supported on **fibers** by hydrogen or coordinate covalent bonding, binders for making)

IT **Absorbents**
 (super-, binders for adhering on **cellulose fibers** of, by hydrogen or coordinate covalent bonding)

IT 50-81-7, L-Ascorbic acid, uses 56-81-5, 1,2,3-Propanetriol, uses 56-81-5D, 1,2,3-Propanetriol, esters 57-13-6, Urea, uses 77-92-9, **Citric acid**, uses 87-69-4, uses 107-22-2, Glyoxal 115-77-5, uses 1854-26-8, Dimethyloldihydroxyethyleneurea 7664-38-2, Phosphoric acid, uses 9002-98-6, Polyethyleneimine 9003-01-4, Acrylic acid polymer 9010-77-9D, Acrylic acid-ethylene copolymer, **carboxylated** 10043-01-3, Aluminum sulfate 23522-05-6, Taurin 24980-41-4D, Polycaprolactone, diol derivs. 25248-42-4D, Polycaprolactone, diol derivs. 25265-71-8, Dipropylene glycol 25322-69-4, Polypropylene glycol 25718-94-9, Polyglycine 106392-12-5, Ethylene oxide-propylene oxide block copolymer 146480-07-1, PN-3666H
 RL: USES (Uses)
 (binders, for adhering absorptive particles on **cellulose fibers** by hydrogen or coordinate covalent bonding)

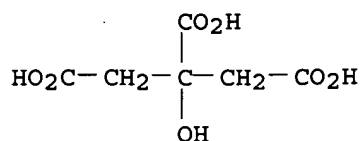
IT 159074-51-8, IM 1000F
 RL: USES (Uses)
 (particulate absorbents, binders for adhering on **cellulose fibers** of, by hydrogen or coordinate covalent bonding)

IT 158191-36-7, Favor 800
 RL: USES (Uses)
 (particulate absorbents/hydrogels, binders for adhering on **cellulose fibers** of, by hydrogen or coordinate covalent bonding)

IT 139-33-3, EDTA disodium-salt 144-62-7, Ethanedioic acid, miscellaneous 497-19-8, Sodium carbonate, miscellaneous
 RL: USES (Uses)
 (particulate, binders for adhering on **cellulose fibers** of, by hydrogen or coordinate covalent bonding)

IT 77-92-9, **Citric acid**, uses 87-69-4, uses
 RL: USES (Uses)
 (binders, for adhering absorptive particles on **cellulose fibers** by hydrogen or coordinate covalent bonding)

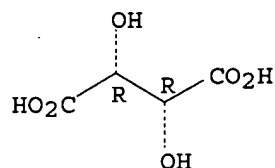
RN 77-92-9 HCAPLUS
 CN 1,2,3-Propanetricarboxylic acid, 2-hydroxy- (9CI) (CA INDEX NAME)



RN 87-69-4 HCAPLUS

CN Butanedioic acid, 2,3-dihydroxy- (2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L107 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1994:167119 HCAPLUS

DN 120:167119

ED Entered STN: 02 Apr 1994

TI Process for the preparation of **crosslinked** polysaccharides useful for super-absorbents for moisture

IN Qin, Jian

PA Kimberly-Clark Corp., USA

SO Eur. Pat. Appl., 20 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C08B037-00

ICS C08B015-10; C08L001-26; C08B011-20

CC 43-3 (Cellulose, Lignin, Paper, and Other Wood Products)

Section cross-reference(s): 44

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 566118	A1	19931020	EP 1993-106150	19930415 <--
	EP 566118	B1	19970917		
	EP 566118	B2	20011017		
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	CA 2076732	AA	19931018	CA 1992-2076732	19920824 <--
	JP 06025303	A2	19940201	JP 1993-56262	19930317 <--
	JP 3221963	B2	20011022		
	AU 9336949	A1	19931021	AU 1993-36949	19930415 <--
	AU 673158	B2	19961031		
	ES 2107574	T3	19971201	ES 1993-106150	19930415 <--
	AU 9654638	A1	19960801	AU 1996-54638	19960531 <--
	AU 690844	B2	19980430		
PRAI	US 1992-870529	A	19920417	<--	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
EP 566118	ICM	C08B037-00	
	ICS	C08B015-10; C08L001-26; C08B011-20	
EP 566118	ECLA	A61L015/60+C08L1/26; C08B015/00B; C08L001/28F+B	<--

- AB Water-swellable, generally water-insol. super-absorbents with high under-load absorbency (AUL) are prepared by **crosslinking** the polysaccharides with **crosslinking** (e.g. esterification and amidation) agents, and heat treatment. A method and an apparatus for measuring the AUL are also described. Thus, heating a 2% CM-cellulose Na-salt (I) solution with a 0.5% chitosan glutamate (II) solution at II/I weight ratio 0.3:100 at 140° for 75 min gave a **crosslinked** product with AUL value 31.8 g/g, vs. 4.9 for **uncrosslinked** I.
- ST super absorbent **crosslinked** polysaccharide; CM cellulose **crosslinked** super absorbent; chitosan glutamate **crosslinker** CMC absorbent
- IT **Polysaccharides, preparation**
 RL: PREP (Preparation)
 (**crosslinked**, super-absorbents, manufacture of, with high under-load absorbency)
- IT Gelatins, uses
 Glycols, uses
 RL: USES (Uses)
 (**crosslinkers**, for polysaccharides in super absorbent manufacture)
- IT **Crosslinking agents**
 (for polysaccharides in super absorbent manufacture)
- IT Amines, uses
 RL: USES (Uses)
 (di-, **crosslinkers**, for polysaccharides in super absorbent manufacture)
- IT Amines, uses
 RL: USES (Uses)
 (poly-, **crosslinkers**, for polysaccharides in super absorbent manufacture)
- IT **Alcohols**, uses
 RL: USES (Uses)
 (**polyhydric**, **crosslinkers**, for polysaccharides in super absorbent manufacture)
- IT Gelatins, compounds
 RL: USES (Uses)
 (reaction products, with polysaccharides, super-absorbents, manufacture of, with high under-load absorbency)
- IT Absorbents
 (super-, **crosslinked** polysaccharides, manufacture of, with high under-load absorbency)
- IT 107-21-1, 1,2-Ethanediol, uses 110-63-4, 1,4-Butanediol, uses 111-40-0, Diethylenetriamine 9002-89-5, Poly(vinyl alcohol) 9002-98-6 9004-61-9, Hyaluronic acid 84563-76-8, Chitosan glutamate
 RL: USES (Uses)
 (**crosslinkers**, for polysaccharides in super absorbent manufacture)
- IT 9004-32-4DP, CM-cellulose sodium salt, gelatin **crosslinked** 153595-21-2P 153595-22-3P 153595-23-4P 153595-24-5P 153595-25-6P
 RL: PREP (Preparation)
 (super-absorbents, manufacture of, with high under-load absorbency)
- IT 9004-32-4DP, CM-cellulose sodium salt, gelatin **crosslinked** 153595-21-2P 153595-22-3P 153595-23-4P 153595-24-5P 153595-25-6P
 RL: PREP (Preparation)
 (super-absorbents, manufacture of, with high under-load absorbency)
- RN 9004-32-4 HCAPLUS
- CN Cellulose, carboxymethyl ether, sodium salt (8CI, 9CI) (CA INDEX NAME)

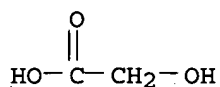
CM 1

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 79-14-1
CMF C2 H4 O3



RN 153595-21-2 HCAPLUS
CN L-Glutamic acid, compd. with chitosan, polymer with cellulose
carboxymethyl ether sodium salt (9CI) (CA INDEX NAME)

CM 1

CRN 84563-76-8
CMF C5 H9 N O4 . x Unspecified

CM 2

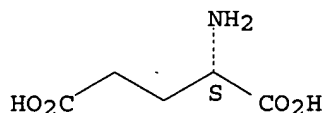
CRN 9012-76-4
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 56-86-0
CMF C5 H9 N O4

Absolute stereochemistry.



CM 4

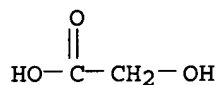
CRN 9004-32-4
CMF C2 H4 O3 . x Na . x Unspecified

CM 5

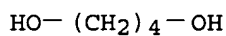
CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 6

CRN 79-14-1
CMF C2 H4 O3RN 153595-22-3 HCAPLUS
CN Cellulose, carboxymethyl ether, sodium salt, polymer with 1,4-butanediol
(9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4
CMF C4 H10 O2

CM 2

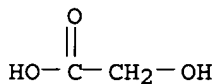
CRN 9004-32-4
CMF C2 H4 O3 . x Na . x Unspecified

CM 3

CRN 9004-34-6
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 79-14-1
CMF C2 H4 O3RN 153595-23-4 HCAPLUS
CN Cellulose, carboxymethyl ether, sodium salt, polymer with aziridine (9CI)
(CA INDEX NAME)

CM 1

CRN 151-56-4
CMF C2 H5 N



CM 2

CRN 9004-32-4

CMF C2 H4 O3 . x Na . x Unspecified

CM 3

CRN 9004-34-6

CMF Unspecified

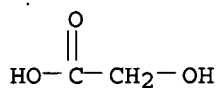
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 79-14-1

CMF C2 H4 O3



RN 153595-24-5 HCAPLUS

CN Cellulose, carboxymethyl ether, sodium salt, polymer with hyaluronic acid
(9CI) (CA INDEX NAME)

CM 1

CRN 9004-61-9

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 9004-32-4

CMF C2 H4 O3 . x Na . x Unspecified

CM 3

CRN 9004-34-6

CMF Unspecified

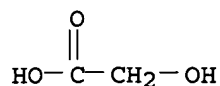
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 79-14-1

CMF C2 H4 O3



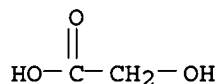
RN 153595-25-6 HCAPLUS
 CN Cellulose, carboxymethyl ether, sodium salt, polymer with
 N-(2-aminoethyl)-1,2-ethanediamine (9CI) (CA INDEX NAME)
 CM 1
 CRN 111-40-0
 CMF C4 H13 N3



CM 2
 CRN 9004-32-4
 CMF C2 H4 O3 . x Na . x Unspecified
 CM 3
 CRN 9004-34-6
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4
 CRN 79-14-1
 CMF C2 H4 O3



L107 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1971:143482 HCAPLUS
 DN 74:143482
 ED Entered STN: 12 May 1984
 TI Effects of addition of alcohols on the rheological properties of methyl
 cellulose aqueous solutions
 AU Hirasaka, Okihiko; Hayashi, Masatoshi
 CS Kogyo Gijutsuin Sen'ikiobunshizaiiryō Kenkyusho, Yokohama, Japan
 SO Kogyo Kagaku Zasshi (1970), 73(12), 2680-7
 CODEN: KGKZA7; ISSN: 0368-5462
 DT Journal
 LA Japanese
 CC 43 (Cellulose, Lignin, Paper, and Other Wood Products)
 AB The effect of the addition of alcs. (MeOH, EtOH, PrOH, ethylene

glycol, and glycerol) on the gelation phenomena of aqueous Me cellulose solns. was studied, and a difference in the quality of the effects produced by monohydric and polyhydric alcs. was observed. The dehydration effect of monohydric alcs. was superior to the solvation effect for low alc. concentration. The solvation effect was > the dehydration effect when the concentration was high

or

the alc. alkyl group was long, and the gelation temperature increased. For polyhydric alcs., the dehydration effect was > that of monohydric alcs., and secondary cross linkages between polymer mols. were formed with the functional groups of polyhydric alcs., and the gelation temperature decreased.

ST gelation methyl cellulose soln; rheol props methyl cellulose; alcs methyl cellulose gelation; methanol methyl cellulose gelation; ethanol methyl cellulose gelation; glycerol methyl cellulose gelation; propanol methyl cellulose gelation; ethylene glycol methyl cellulose gelation

IT Rheology

(of cellulose methyl ether aqueous solns., alcs. effect on)

IT 9004-67-5

RL: USES (Uses)

(rheology of aqueous solns. of, alcs. effect on)

IT 56-81-5, properties 64-17-5, properties 67-56-1, properties 71-23-8, properties 107-21-1, properties

RL: PRP (Properties)

(rheology of cellulose methyl ether aqueous solns. in presence of)

IT 9004-67-5

RL: USES (Uses)

(rheology of aqueous solns. of, alcs. effect on)

RN 9004-67-5 HCAPLUS

CN Cellulose, methyl ether (8CI, 9CI) (CA INDEX NAME)

CM 1

CRN 9004-34-6

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 67-56-1

CMF C H4 O

H₃C-OH

L107 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1967:77157 HCAPLUS

DN 66:77157

ED Entered STN: 12 May 1984

TI Polyethers of levoglucosan

IN Carlberg, Lawrence G.; Shafizadeh, Fraidoun

PA Weyerhaeuser Co.

SO U.S., 2 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 INCL 260209000
 CC 43 (Cellulose, Lignin, Paper, and Other Wood Products)
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3305542		19670221	US	19650325

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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US 3305542	INCL	260209000
US 3305542	NCL	536/120.000; 521/175.000

AB Long- or short-chain polyether **polyols** (I) are prepared by etherification of levoglucosan (II) with ethylene oxide or propylene oxide (III) in the presence of Et₃N as catalyst and use of the resulting alcoholate as a catalyst for further reaction of II and III. Thus, II 100, III 107, and Et₃N 1.04 g. were heated to 120° for 40 min. to yield 93% 2,3,4-tris(hydroxypropyl)levoglucosan (IV). IV (20 g.) was refluxed for 15 hrs. in 50 cc. C₆H₆ with 1.0 g. K shavings, and then concentrated to remove C₆H₆ to yield an alcoholate catalyst solution (V). A mixture of 138 g. II, 157 g. III, and the V from the preceding step was heated to 160° for 35 min. to yield 96% I, 11.8% OH content, 6120 cp. viscosity. The K catalyst was removed by the addition of **tartaric acid** to form an insol. K tartrate. The **polyols** were also prepared in a 1-step process by slow addition of III to II in the presence of KOH. Depending upon the mole ratio of II to III, the I are useful in the preparation of either rigid or flexible polyurethane foams and elastomers.

ST POLYETHER **POLYOLS**; ETHERIFICATION LEVOGLUCOSAN; POLYURETHANE ELASTOMERS FOAMS; ELASTOMERS POLYURETHANE; FOAMS POLYURETHANE; LEVOGLUCOSAN POLYETHERS; POLYETHERS LEVOGLUCOSAN

IT Glycols, polypropylene, ether with levoglucosan
 RL: USES (Uses)
 (catalysts for, potassium hydroxide or triethylamine)

IT 15802-24-1P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (manufacture of)

IT 498-07-7
 RL: USES (Uses)
 (polyethers with ethylene oxide or propylene oxide made with potassium hydroxide or triethylamine catalyst)

IT 25322-68-3D, Glycols, polyethylene, ethers with levoglucosan
 RL: USES (Uses)
 (potassium hydroxide or triethylamine catalysts for)

=> => d his

(FILE 'HOME' ENTERED AT 08:22:37 ON 12 AUG 2005)
 SET COST OFF

FILE 'HCAPLUS' ENTERED AT 08:22:45 ON 12 AUG 2005

L1	1 S US20050143571/PN OR US2003-748977#/AP, PRN
	E WEYERHAEUSER/PA, CS
	E WEYERHAUSER/PA, CS
L2	827 S (WEYERHAEUSER? OR WEYERHAUESER? OR WEYERHAUSER?)/PA, CS
	E STOYANOV A/AU

L3 159 S E3-E12,E21,E22
E STOYANOF A/AU
E NEIENI S/AU
E NAIENI S/AU
L4 12 S E4,E5
E SHAHROKH/AU
E UNRAU D/AU
L5 8 S E3-E5

FILE 'REGISTRY' ENTERED AT 08:29:33 ON 12 AUG 2005

L6 6 S 6915-15-7 OR 80-69-3 OR 77-92-9 OR 87-69-4 OR 2889-31-8 OR 59
L7 7 S (D-MALIC ACID OR L-MALIC ACID OR L-CITRAMALIC ACID OR D-CITRA
L8 12 S L6,L7
L9 3217 S MALIC ACID OR TARTARIC ACID OR CITRIC ACID OR TARTRONIC ACID
L10 1491 S L9 AND 1/NC
SEL MF L8
L11 59 S E1-E5 AND L10
L12 40 S L11 NOT ((D OR T)/ELS OR LABELED OR ION OR 180# OR 170# OR 11
L13 28 S L12 NOT L8
SEL RN 18 19 28
L14 3 S E6-E8
L15 15 S L8,L14

FILE 'HCAPLUS' ENTERED AT 08:37:15 ON 12 AUG 2005

L16 6171 S L15 (L) RACT+NT/RL
L17 106433 S (MALIC OR TARTARIC OR CITRIC OR TARTRONIC OR CITRAMALIC OR (2
L18 386 S ALPHA() (OH OR HYDROXY) () (POLYCARBOXYLIC OR POLY CARBOXYLIC OR
E CARBOXYLIC ACIDS/CT
L19 440 S E3 (L) (ALPHA HYDROXY#)
L20 5695 S E3 (L) HYDROXY#
L21 4017 S E50
L22 5607 S E128,E130
L23 1670 S E160,E165
L24 1933 S E169
L25 9392 S E228
L26 126182 S L16-L25
L27 100244 S CROSSLINK?/CT,CW
E CROSSLINK/CT
E E15+ALL
L28 53911 S E2
L29 23820 S E12+OLD,NT OR E11+OLD,NT OR E10+OLD,NT
E E9+ALL
L30 34782 S E3
L31 285440 S L27-L30 OR ?CROSSLINK? OR ?CROSS LINK?
L32 69107 S POLYOL OR POLY OL OR POLYALCOHOL OR POLY ALCOHOL OR (POLYHYDR
L33 36478 S ?POLYOL

FILE 'REGISTRY' ENTERED AT 08:43:31 ON 12 AUG 2005

L34 12 S 50-70-4 OR 87-78-5 OR 87-89-8 OR 87-99-0 OR 149-32-6 OR 488-3

FILE 'HCAPLUS' ENTERED AT 08:45:45 ON 12 AUG 2005

L35 32001 S L34
L36 1863 S L34 (L) RACT+NT/RL
L37 72360 S ERYTHRITOL OR XYLITOL OR ARABINITOL OR RIBITOL OR SORBITOL OR
L38 746 S HETEROSIDE
L39 37528 S INOSITOL
L40 403 S XYLITE OR MESOINOSITE
L41 327 S SORBIT
L42 439 S ADONITOL
L43 219 S MESOINOSITOL OR MESOERYTHRITOL

L44 26 S MULTITOL OR LACTIT
L45 205 S PALATINIT
L46 166308 S L32,L33,L35-L45
L47 14799 S L26,L31 AND L46
L48 240 S L47 AND CELLULOS?/SC,SX
L49 32 S L47 AND CELLULOS?/CW,CT
L50 1597 S L47 AND ?CELLULOS?
E CELLULOSE/CT
L51 291751 S E42+OLD,NT,PFT,RT
L52 5491 S E31,E32,E33
E E3+ALL
L53 180343 S E7+NT
E CELLULOSE PULP/CT
L54 2 S E34,E35
E E36+ALL
L55 4227 S E2
E CELLULOSIC/CT
E E4+ALL
L56 2560 S E2
L57 34 S E4
L58 4227 S E6
L59 142 S E8
L60 1 S E10
L61 113 S E20
L62 1790 S L47 AND L51-L61
L63 2180 S L48,L49,L50,L62

FILE 'REGISTRY' ENTERED AT 08:53:46 ON 12 AUG 2005

L64 1 S CELLULOSE/CN
L65 6869 S 9004-34-6/CRN
L66 8513 S ?CELLULOS?/CNS
L67 8516 S L64-L66

FILE 'HCAPLUS' ENTERED AT 08:54:17 ON 12 AUG 2005

L68 1370 S L67 AND L47
L69 2214 S L63,L68
L70 73 S L47 AND PULP
L71 2241 S L69,L70
L72 24 S L71 AND ?INDIVIDUAL?
L73 2241 S L71 AND L1-L5,L16-L33,L35-L63,L68-L71
L74 24 S L72 AND L73

FILE 'REGISTRY' ENTERED AT 08:57:44 ON 12 AUG 2005

FILE 'HCAPLUS' ENTERED AT 08:58:29 ON 12 AUG 2005

L75 15395 S L15,L26,L31 AND L46
L76 2330 S L75 AND (L51-L61 OR PULP OR ?CELLULOS? OR CELLULOS?/SC,SX,CW,
L77 25 S L76 AND ?INDIVIDUAL?
L78 4 S L77 AND CELLULOS?/SC,SX
L79 249 S L76 AND CELLULOS?/SC,SX
L80 245 S L79 NOT L77

FILE 'REGISTRY' ENTERED AT 09:01:53 ON 12 AUG 2005

L81 2 S MANNITOL/CN

FILE 'HCAPLUS' ENTERED AT 09:02:23 ON 12 AUG 2005

L82 1811 S L81 AND L15,L26,L31
L83 631 S L82 AND (L51-L61 OR PULP OR ?CELLULOS? OR CELLULOS?/SC,SX,CW,
L84 19 S L83 AND CELLULOS?/SC,SX
L85 16 S L84 NOT L77

L86 251 S L80,L85,L78
L87 9 S L86 AND L1-L5
E UNRAN/AU
L88 9 S E4,L87
L89 9 S L88 AND L1-L5,L16-L33,L35-L63,L68-L80,L82-L88
L90 242 S L86 NOT L89
L91 242 S L90 AND L1-L5,L16-L33,L35-L63,L68-L80,L82-L90
L92 0 S L91 AND INTRAFIB?
L93 189 S L91 AND L31
L94 240 S L91 AND (PY<=2003 OR PRY<=2003 OR AY<=2003)
L95 1 S L94 AND L16
L96 4 S L94 AND (L36 OR L81(L)RACT+NT/RL)
L97 5 S L95,L96
L98 10 S L95,L89
L99 61 S (L36 OR L81(L)RACT+NT/RL) AND L16
L100 55 S L99 AND (PY<=2003 OR PRY<=2003 OR AY<=2003)
SEL DN AN L94 5 9 43 59 74 85 96 116 124 134 142 180 208 223 2
L101 16 S L94 AND E1-E48
SEL DN AN 3-6 8 9 15
L102 7 S L101 AND E49-E69
L103 16 S L98,L102 AND L1-L5,L16-L33,L35-L63,L68-L80,L82-L102
L104 15 S L103 AND (?CELLULOS? OR PULP OR ?FIBER? OR ?FIBR? OR YARN OR
L105 12 S L103 AND (MALIC OR TARTARIC OR CITRIC OR TARTRONIC OR HYDROXY
L106 3 S L103 AND (ISOMALT OR LACTITOL OR MALITOTIL)
L107 16 S L103-L106

FILE 'HCAPLUS' ENTERED AT 09:28:07 ON 12 AUG 2005

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